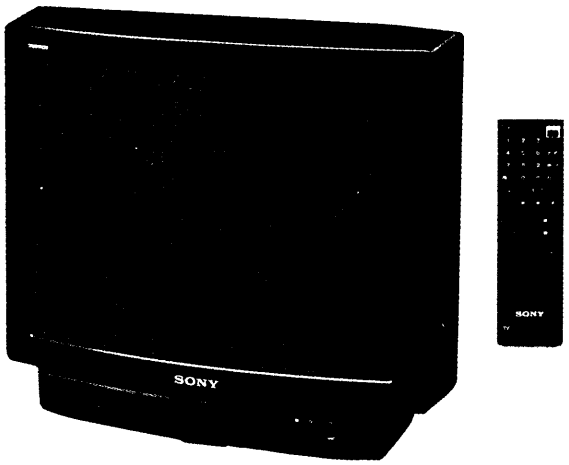
KV-M1921U
RM-694

SERVICE MANUAL

UK Model

Chassis No. SCC-D86G-A



BE-2A CHASSIS

MODELS OF THE SAME SERIES	
KV-M1921U	KV-M1420U/M1421U
KV-M2140U/M2141U	
KV-M1620U/M1621U	

SPECIFICATIONS

【KV-M1921U】

Television system	I
Color system	PAL
Channel coverage	UHF : 21-69
Picture tube	Black Trinitron tube 90° degree deflection Approx. 49.0 cm (19 inches) (Approx.46.0cm picture measured diagonally)
Inputs	21-pin connector : CENELEC standard Including RGB input VC-A Audio/Video input jacks S-Video input phono jacks
Outputs	21-pin connector : CENELEC standard Headphones jack : minijack
Sound output	5W (Music power) 4 W (RMS)
Power consumption	85W
Dimensions	Approx. 462x437x462 mm (w/h/d)
Weight	Approx. 19 kg

【RM-694】

Remote control system	infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimensions	Approx. 55×18×185mm (w/h/d)
Weight	Approx. 100g including batteries
Supplied accessories	RM-694 Remote Commander (1) IEC designation R6 batteries (2)

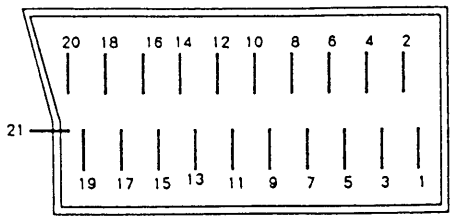
Design and specifications are subject to change without notice.

MICROFILM

TRINITRON® COLOUR TV

SONY®

21-pin Euro Connector Configuration



PIN	SIGNAL	SPECIFICATION
1	Audio output	0.5Vrms/1kilohm or less
2	Audio input	0.5Vrms/10kilohms or more
3	Audio output	0.5Vrms/1kilohm or less
4	Earth (audio)	
5	Earth (B-input)	
6	Audio input	0.5Vrms/10kilohms or more
7	B-input	0.7Vp-p/75ohms
8	Function switching	9.5V to 12V
9	Earth (G-input)	
10		
11	G-input	0.7Vp-p/75ohms
12		
13	Earth (R-input)	
14	Earth (blanking)	
15	R-input	0.7Vp-p/75ohms
16	Fast blanking	1V to 3V/75ohms
17	Earth (video)	
18	Earth (fast blanking)	
19	Video output	1Vp-p/75ohms
20	Video input	1Vp-p/75ohms
21	Screening plug	

4 pin connector (S-)

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75ohm, positive Sync 0.3V ± 3 dB
4	C (S signal) input	0.3V ± 3dB 75ohm positive

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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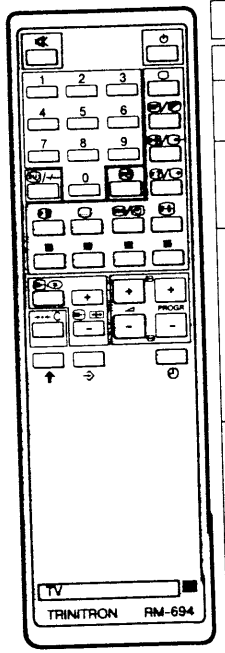
SECTION 1
GENERAL

1-1. PRESETTING OF CHANNELS

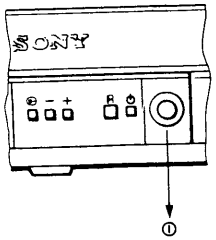
After having installed the TV, you now need to preset TV channels. Up to 60 programme positions are at your disposal. For channel presetting use the buttons with the red symbols on the Remote Commander.

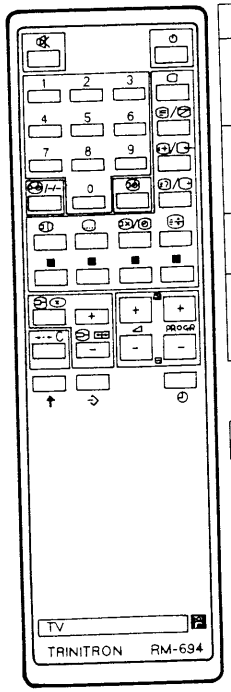
Important: In order to ensure presetting, you have to keep the ⬆ (SHIFT) button pressed, while pressing the other buttons (that is ⏎, +/−, C) during presetting.

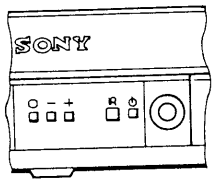


Automatic Presetting of Channels

Action	Result
1 Turn on the TV using the power switch ⏻ on the set.	
2 Press both the ⬆ (SHIFT) button and the ⏎ PRESET button simultaneously.	You are now in the preset mode. The programme number flashes.
3 Press either the number buttons or PROGR +/− to select the programme number on which you want to preset the channel. **Note:** In case of two digit numbers, first press −/−−, then the two number.	The selected programme number will be indicated.
4 Press both the ⬆ SHIFT button and the +/− button repeatedly, until the desired channel is tuned in.	The scale with the frequency band changes.
5 Repeat steps 3 and 4 for all other channels.	
6 Press both the ⬆ SHIFT and the ⏎ PRESET button simultaneously to store the channels.	All channels are now stored. The programme number stops flashing.







How to skip programme positions

Since you have 60 programme positions at your disposal, you may want to skip vacant programme positions, that is that they are skipped when you press the PROGR +/− buttons.

Action	Result
1 Press both the ⬆ SHIFT button and the ⏎ PRESET button simultaneously.	You are now in the preset mode. The programme position flashes.
2 Use either PROGR + or − to select the programme position you want to skip.	The selected programme position appears.
3 Press both the ⬆ SHIFT button and the button C simultaneously.	
4 Press both the ⬆ SHIFT button and the ⏎ PRESET button simultaneously.	The programme position is now skipped. You are back in TV mode.

How to fine tune a channel manually

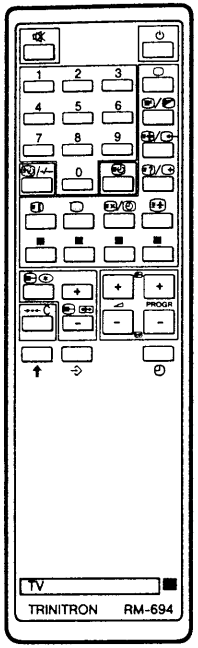
If the reception of a stored channel is not satisfactory, you can fine tune the channel manually.

Action	Result
Press both the ⬆ SHIFT button and the +/− button simultaneously until the reception is good.	The channel is fine tuned.

Note: By pressing the respective programme number the automatic fine tuning will be restored.

1-2. TV OPERATION

Your TV set is supposed to be operated with the Remote Commander.
For the basic functions, however, it is also possible to use the buttons on the set.

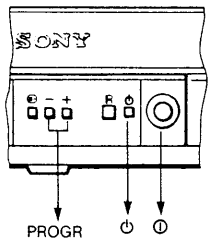


How to switch the TV on and off

Action	Result
1 Press the power switch ⏻ on the set.	The TV will turn on. **Note :** If the red indicator is on, the set is in standby mode.
2 Press a number button on the Remote Commander, to select a programme.	The selected programme appears.
In order to switch the set off temporarily : Press button ⏲ on the Remote Commander.	The set is in standby mode. Press button ▢ or any number button to switch it on again.
In order to switch the set off temporarily : Press the power switch ⏻ on the set.	The set is switched off.

Sleep Timer

Press the ⏲ button repeatedly until the required time period is displayed on the screen (30, 60, 90 minutes or 0 for cancelling the request).
In this way you can select the time period after which the set switches itself automatically into standby-mode.



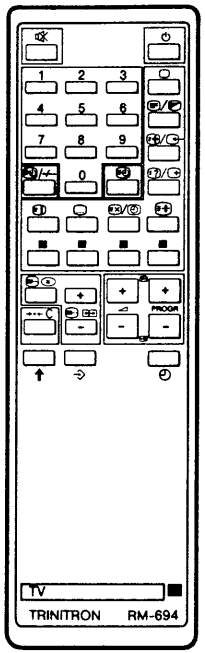
How to select programmes

Before selecting programmes make sure that you have preset channels.

Action	Result
1 Switch the TV on.	
2 Press PROGR +/− or the respective number button on the Remote Commander. In case of two digit numbers first press the button −/−− and then the two respective number buttons.	The selected programme is displayed.

On the set :

Press the − button for lower programme positions and the + button for higher ones.



How to adjust the volume

Action	Result
Press ◿ + or −.	The symbol and the bar for the volume are displayed on the screem. The volume is adjusted.

On the set

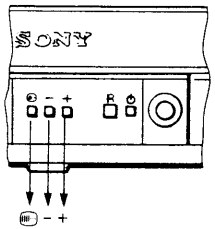
Press ▭, until the symbol ◿ is displayed on the screen, then adjust the volume by pressing the + or − buttons.

Muting of the sound :

Action	Result
Press button 🔇.	The sound is switched off. Press the button again to restore the sound.

How to adjust the picture

Action	Result
1 Press button ▭ repeatedly, until the desired item is displayed (◑ contrast, ◕ colour intensity, ☼ brightness).	The symbol and the respective bar display are displayed.
2 Press button + or −.	The selected picture item is adjusted.



On the set :

Press button repeatedly in order to select the desired item, then adjust with the + or − button.

To return to factory-set levels

Press the button →・←.

Other functions

On-screen display

Press the button ▭ to display the programme number on the screen and press the button a second time to make it disappear.

Selecting the signal of a connected device.

Press the button to receive the signal of the device (e.g. a VTR) connected at the V ▭A connectors (front of the set), the S-Video input or the 21-pin connetor (rear of the set). Press the button ▢ to return to the TV mode.

On the set :

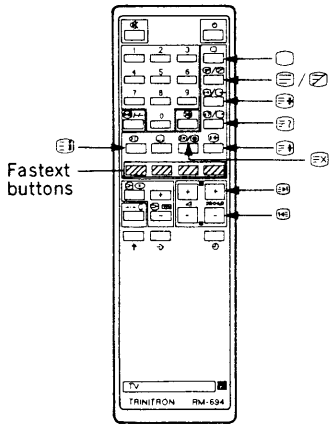
Press button ▭ so that the symbols ▢, ▭, and ▭ will be displayed. Press the + button to select the video input mode. Press ▭ and + buttons a second time to return to the TV mode.

Time function

Press ⏲ to display the time. Press button again to cancel the request (only if teletext is broadcast).

1-3. HOW TO VIEW TELETEXT

Viewing Teletext



To view the teletext service, use the Remote Commander. The buttons for teletext operation are indicated in green.
Select the TV channel for the desired teletext service. If the signal is weak, teletext errors can occur.

To receive the teletext service of a different TV channel

1. Press to return to the TV mode.
2. Select the desired TV channel.
3. Press ▤/▨ (TEXT/MIX).

Press ▢/▨ (TEXT/MIX) to display the teletext service.
Key in three digits of the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.
The requested teletext page is displayed.
To return to TV mode press ▢ on the Remote Commander.

Teletext Functions

To request Index Page
Press ▢ (INDEX). If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page
Press
(PAGE+) or
(PAGE−)

To superimpose the teletext display on the picture (MIX)
Press ▤/▨ twice from the TV mode. Press again to return to the TEXT display.

To prevent the Teletext page from being updated/changed
Press ▤ (HOLD). The HOLD symbol appears on the screen.
To resume normal teletext reception (press ▤/▨ (TEXT/MIX)).

To enlarge the Teletext display
Press ▤ once to enlarge the upper half of the display; (press again to enlarge the lower half of the display. And press again to return to the normal display).

To reveal concealed information such as answers to a quiz
Press ▤ (REVEAL).
Press again to conceal the answers.

To watch the TV programme while waiting for a requested page to be displayed
1. Request the new page.
2. Press ▤ to watch the TV programme. The requested page number and other data appear at the top of the screen. When the requested page has been captured, the page number is displayed in the top left hand corner of the screen.
To view this page, press ▤/▨.

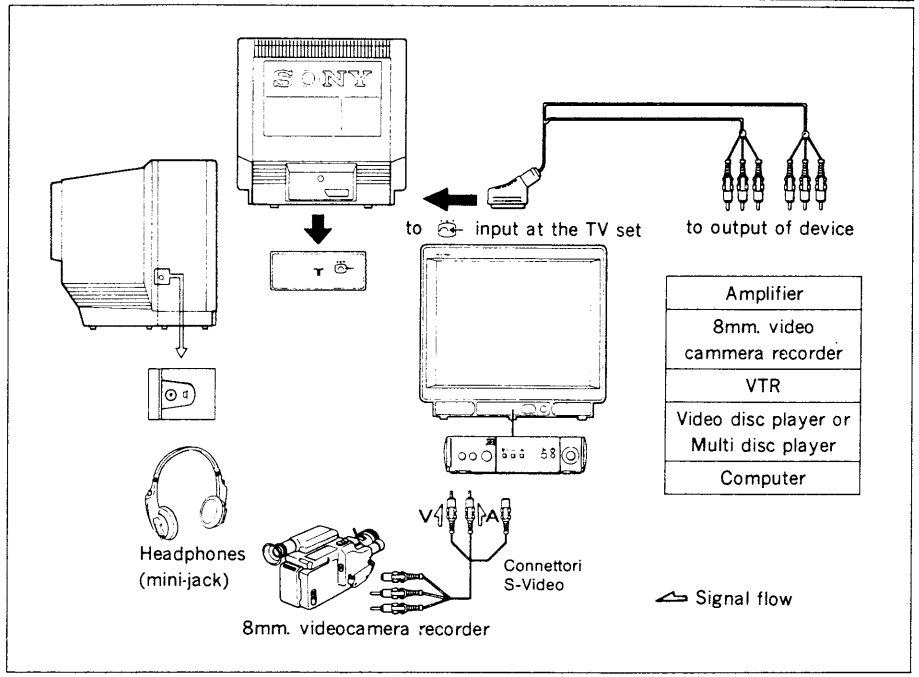
Fastext Operation

FASTEXT teletext enables you to access pages quickly and conveniently with one key operation. When a FASTEXT page is broadcast a colour coded menu will appear at the bottom of the screen. Each coloured prompt relates to the coloured keys on the Remote Commander. Pressing one of these will select the page described by the prompt.
Selection may also be made by entering the three digit page number in the normal way.

Correct FASTEXT operation relies on the necessary signals being transmitted by the Broadcastig Authorities. It is possible that some Broadcasters will not support this transmission.
If FASTEXT is not transmitted, the decoder will operate as outlined above.

1-4. OPTIONAL CONNECTIONS/OPERATION

How to connect additional Audio/Video equipment



How to view the Video input signal

Press button ▢ repeatedly in order to select the desired input mode (▢ for Audio/video signals from 21-pin EURO connector ▢ or from the video/audio connectors V ▢ A on the front; ▢ for S-video signals from the S-video (4-pin DIN) connectors on the front). Press button ▢ to return to TV mode.

On the set:
Press button ▢ until the symbols ▢, ▢, ▢, appear on the screen, then press the + or − buttons to select the desired video input mode. Press ▢ again to return to TV-mode.

S-video input (Y/C input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality (espeially luminance). This TV is equipped with one S-video input jack through which these separated signals can be input directly.

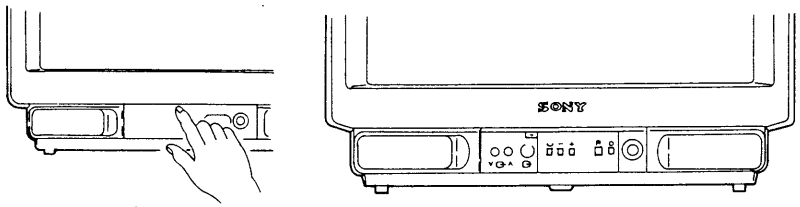
Notes

- When you have Audio/video equipment connected to both the A/V connectors and the 21-pin terminal, make sure that not both are swiched on at the same time, otherwise the picture could be incomplete.
- In case of sound or picture distortions move the VTR away from the TV set.

1-5. PARTS IDENTIFICATION

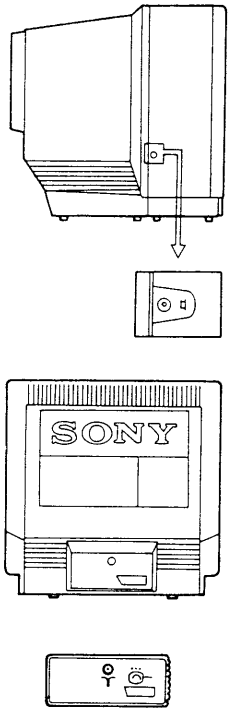
In the following you will find a short description of the parts and their function on the set or on the remote commander using the respective symbols. For more details refer to the page number given in the index.

TV-Set Front

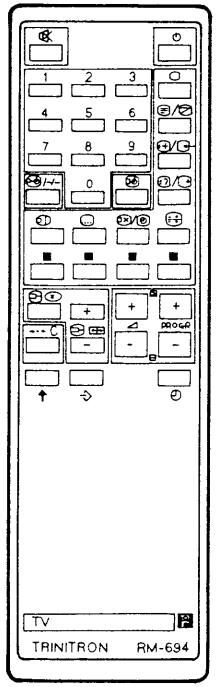


Press ⬆ to open the panel

TV-Set Rear



Remote Commander



TV set

Symbol	Function
∩	Headphones jack (mini-jack)
V ⊂	Video input jack
A ⊂	Audio input jack
⊂	S-Video input
+/-	Buttons for sound and picture adjustment
+/-	Programme scanning buttons
	Remote control detector
⏻	Standby indicator
⏼	Power switch
	Aerial socket (rear of the set)
	21-pin connector (rear of the set)

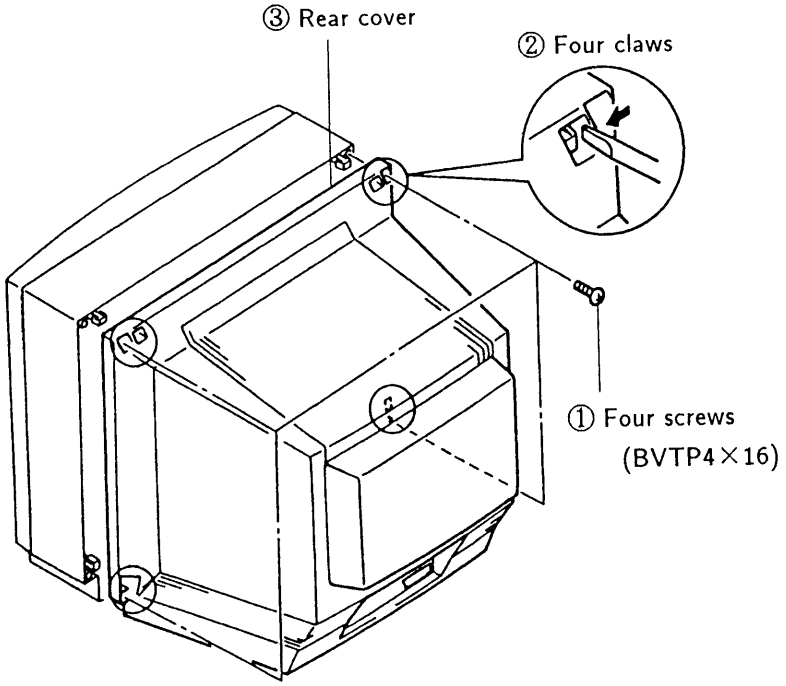
Remote Commander

Symbol	Function
	Mute button
1-9, 0, -/--	Number buttons – in case of two digit numbers first press button –/– – and then two number buttons
	These Button has no function
	Select button for picture adjustment item
+/-	Buttons for adjusting picture items
⬆ and +/-	Buttons for manual fine tuning of a channel / channel search
	Button for resetting the picture adjustment items to standard
⬆ and C	Buttons for clearing a programme position (in preset mode)
⬆	Functions only in combination with other buttons
and ⬆	Preset mode on / off buttons
⏻	Button for switching the TV set into standby mode
	Used to return to TV-mode from standby and video input modes
⊂	Button for selecting the video input modes
	On/off button for on screen display
	Time feature
PROGR +/-	Programme scanning buttons
+/-	Buttons for adjusting the volume
	Button for activating the sleep timer
/	Teletext buttons
	FASTEXT buttons

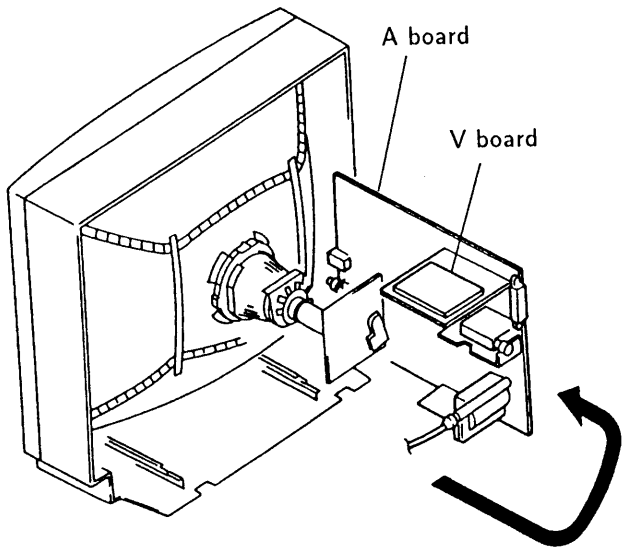
Note Buttons not referred to in this index have no function.
The green buttons are for Teletext.

SECTION 2
DISASSEMBLY

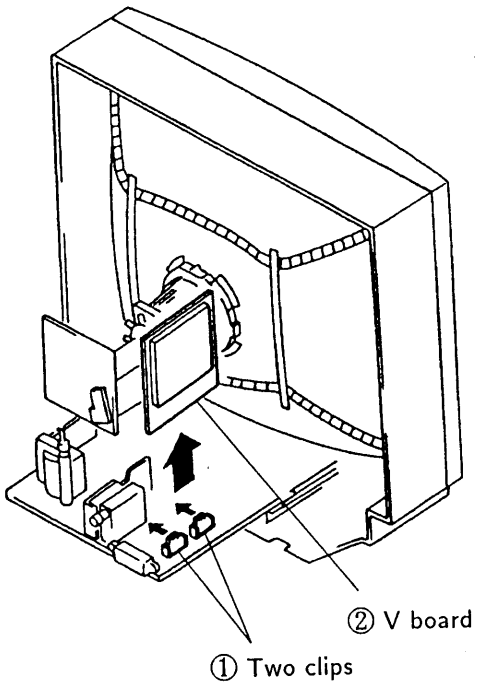
2-1. REAR COVER REMOVAL



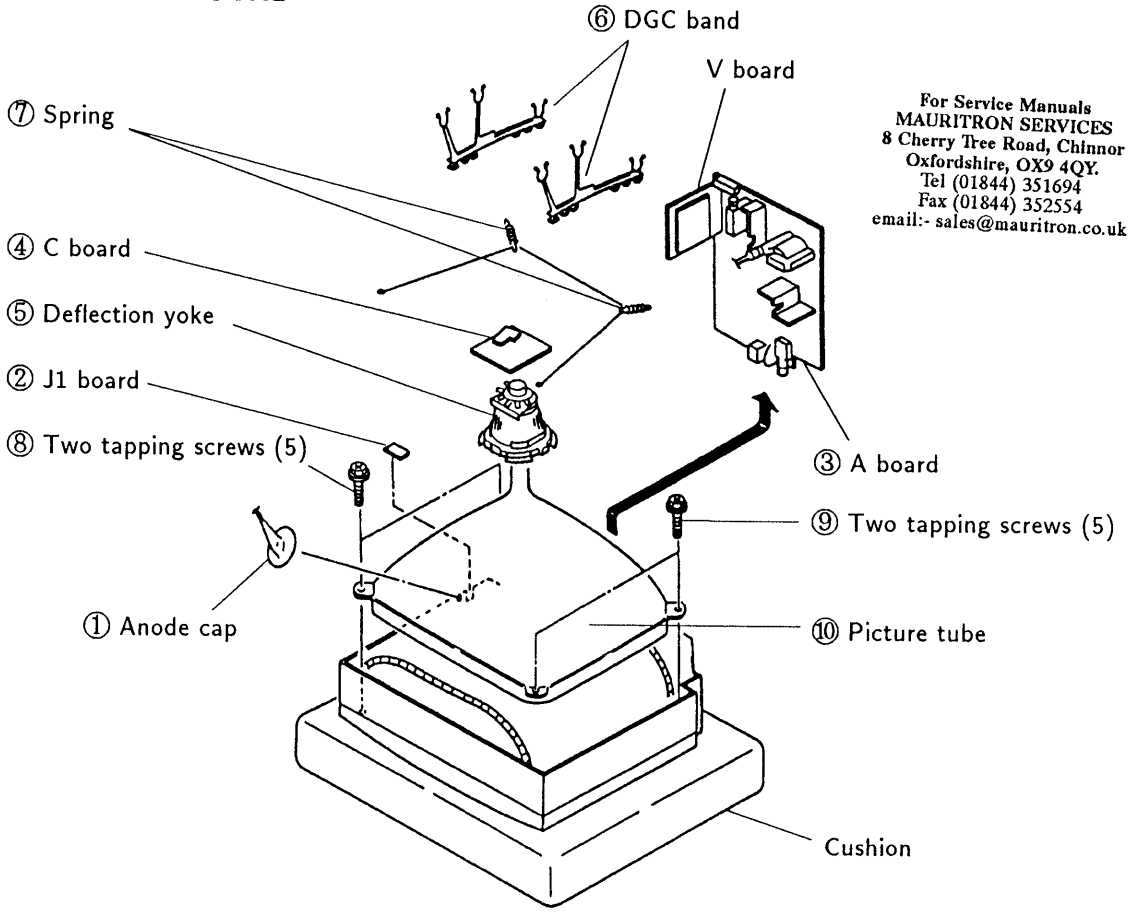
2-2. SERVICE POSITION



2-3. V BOARD REMOVAL



2-4. PICTURE TUBE REMOVAL



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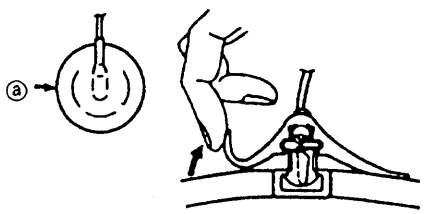
email:- sales@mauritron.co.uk

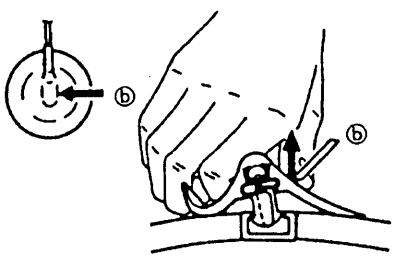
• REMOVAL OF ANODE-CAP

Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

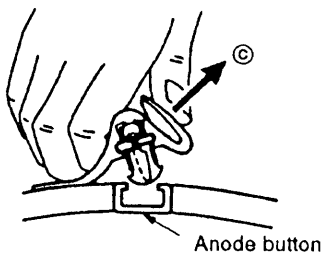
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



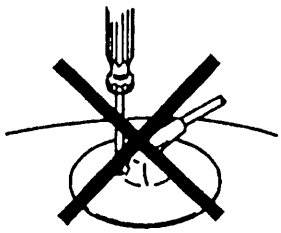
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

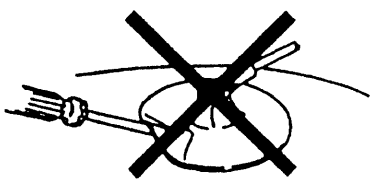
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

● The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

● These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch below should be set as follows unless otherwise noted :

◑ CONTRASTcontrol ..... 80%(or Normal by commander)

☼ BRIGHTNESS control 50%

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G 2) and White Balance

Note: Test Equipment Required.

1. Color bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Preparation:

● Set the side of the unit with the PICTUE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.

● Turn the power switch for the unit ON and erase the magnetic force using a degausser..

3-1. BEAM LANDING

Demagnetize with a degausser

1. Input a raster signal with the pattern generator.
   CONTRAST, BRIGHTNESS } normal
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides evenly. (Fig.3-1 - 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig.3-1)
5. Switch over the raster signal to blue and green confirm the condition.
6. When the position of the deflection yoke is determined,tighten it with a deflection yoke mounting screw.
7. When landing at the corner is not right, adjust by using the disk magnets. (Fig.3-4)

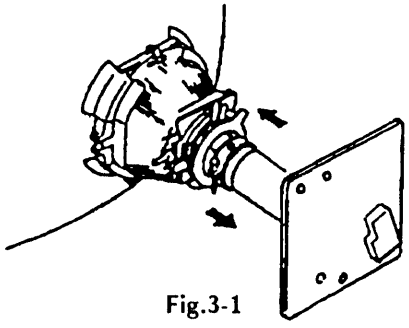


Fig.3-1

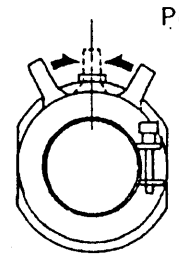


Fig.3-2

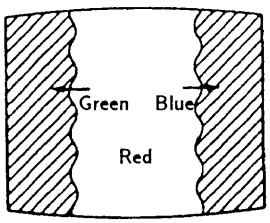


Fig.3-3

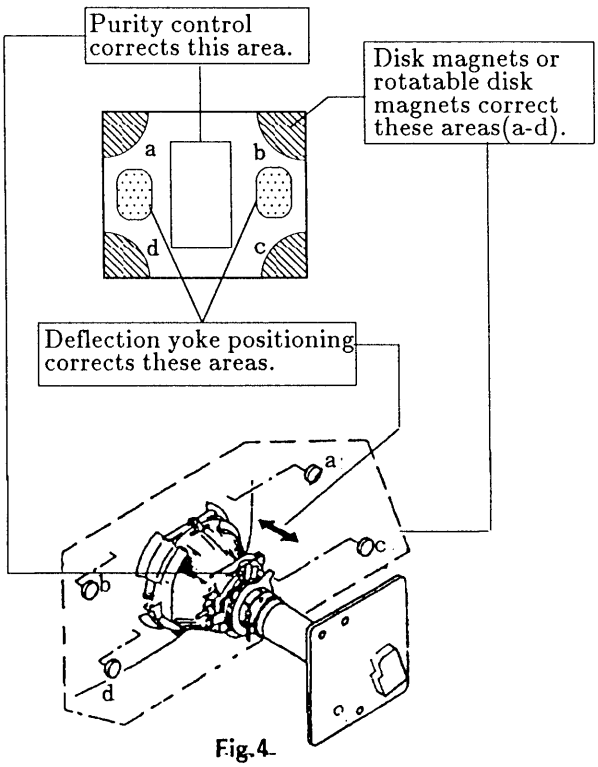


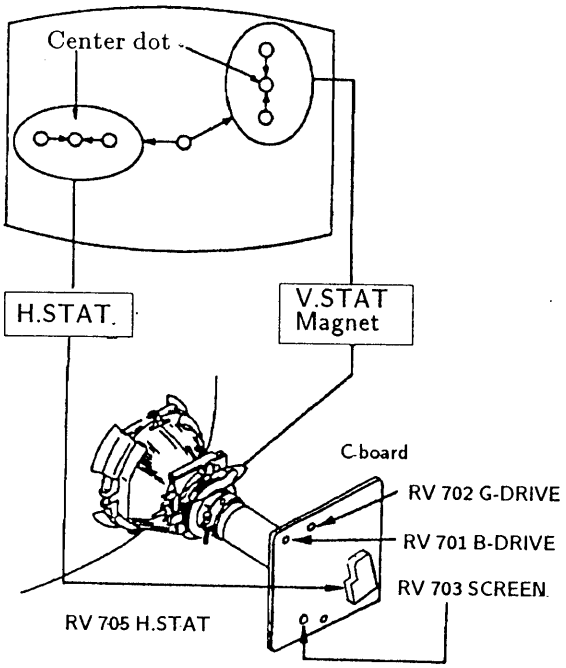
Fig.4

3-2. CONVERGENCE

Preparation:

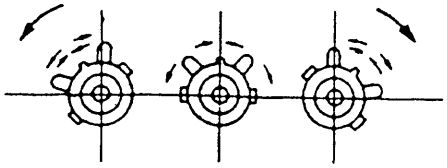
- Before starting, perform FOCUS, H.SIZE, and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence

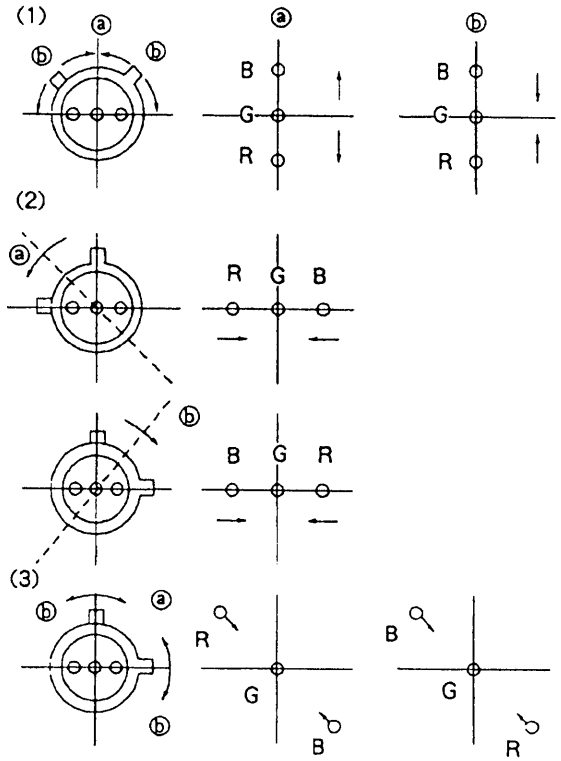


1. Adjust H.STAT VR to converge red, green and blue dots the in center of the screen.(Horizontal movement)
2. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement)
3. If the red, green and blue dots do not converge on the center of screen with H.STAT VR, perform horizontal convergence adjustment using H.STAT VR and V.STAT magnet as shown below. (In this case, H.STAT VR and V.STAT magnet effect each other.)

- Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.



4.When the V.STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green and blue dots move as shown below.

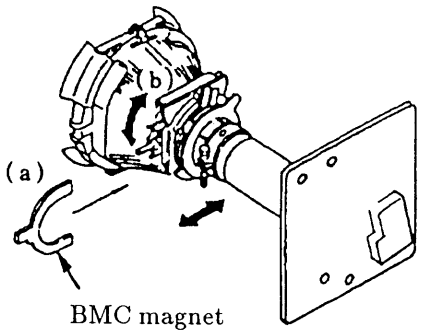


If the red and blue dot do not converge with green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H.static convergence.

Rotate BMC magnet (b) to correct insufficient V.static convergence.

In either case, repeat Beam Landing Adjustment.

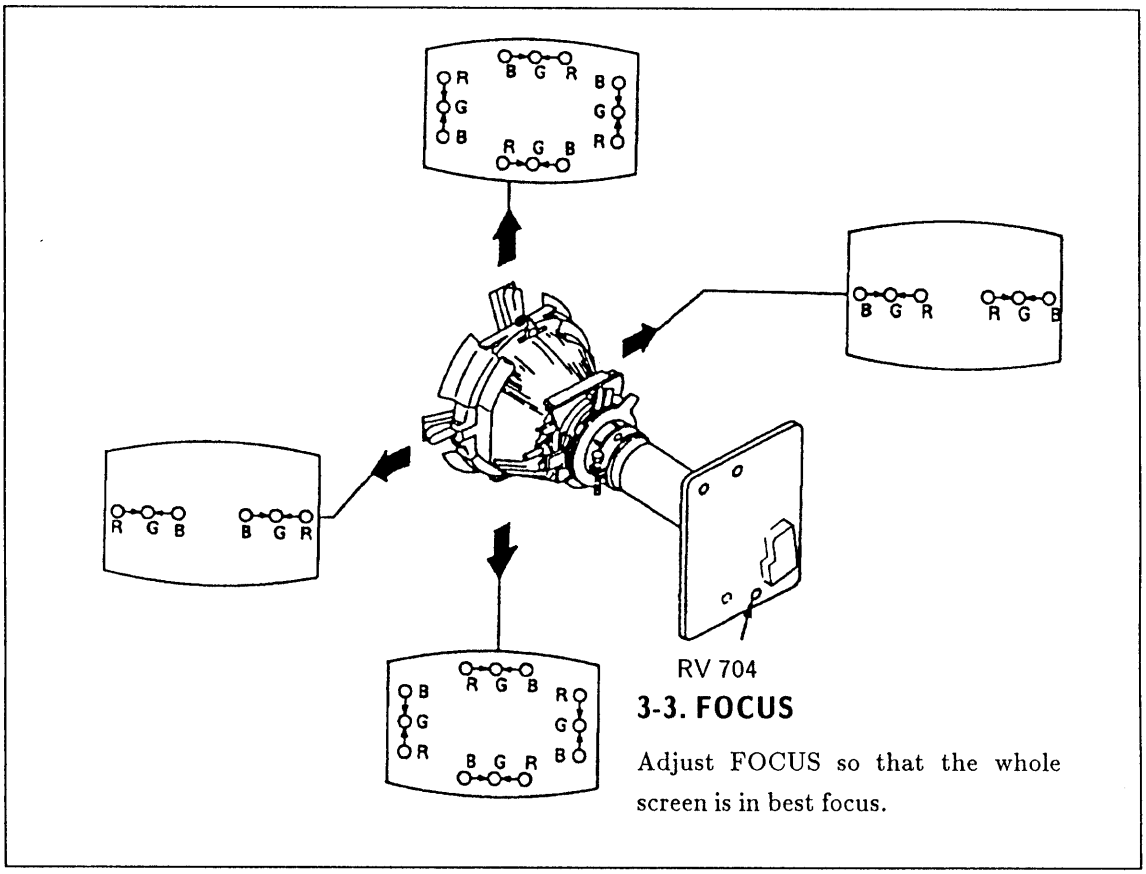


(2)Dynamic Convergence Adjustment

Preparation:

● Before starting perform Horizontal and Vertical static convergence Adjustment.

1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

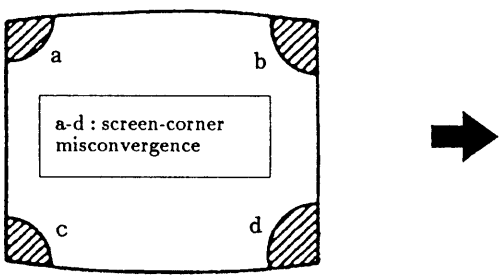


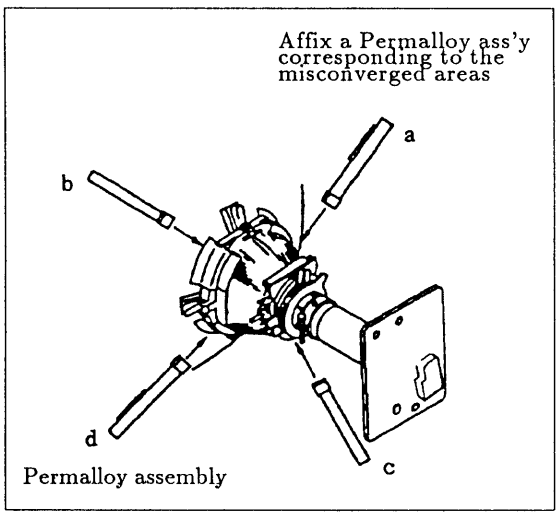
RV 704

3-3. FOCUS

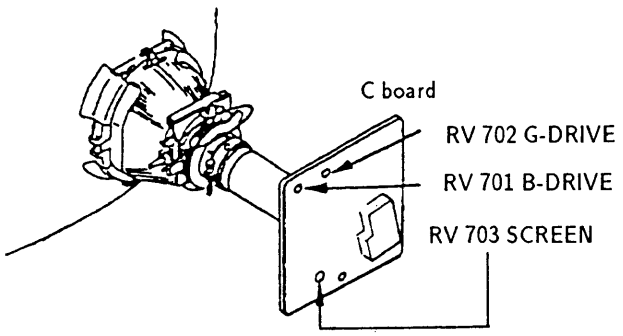
Adjust FOCUS so that the whole screen is in best focus.

(3) Screen-corner Convergence





3-4. SCREEN (G 2) and WHITE BALANCE



Screen (G 2) Setting

1. Input dot signal from the pattern generator.
2. Set the picture BRIGHTNESS control to minimum level.
3. Apply 140 V DC to the cathodes of R,G and B from an external power source.
4. While watching the picture, adjust the G 2 volume RV703 (SCREEN)immediately before fly-back line disappears.

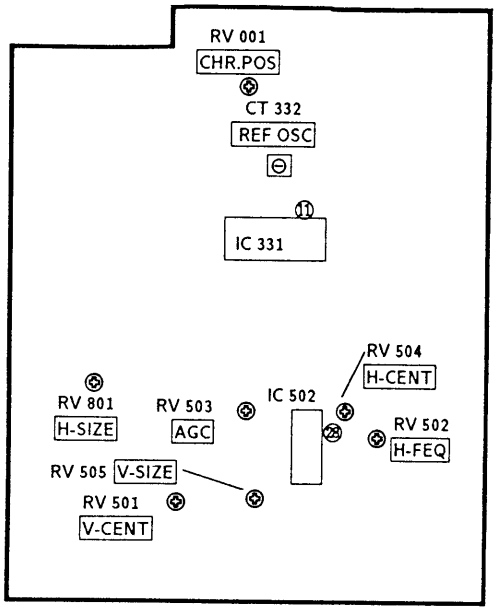
White Balance Adjustment

1. Input all-white signal from the pattern generator.
2. Adjust the BRIGHTNESS and COLOR controls to the standard level.
3. Adjust the following using RV 701 (B DRIVE) and RV 702 (G DRIVE)

In the following adjustments, the CONTRAST, COLOR and BRIGHTNESS controls are set to normal unless otherwise specified.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. A BOARD ADJUSTMENTS

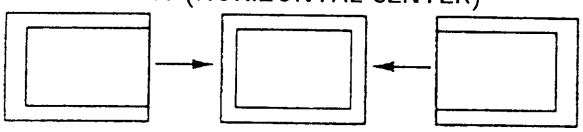


A BOARD
-Component side-

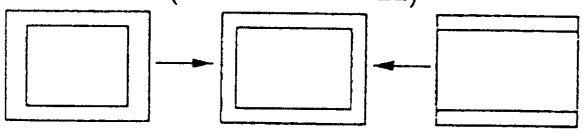
TU AGC Adjustment (RV 503)

1. Tune in air signal.
2. Adjust AGC VR (RV 503) so that snow-noise and cross-modulation just disappear from the picture.

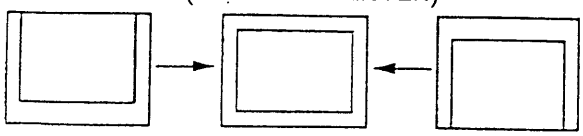
RV 504 H.CENT (HORIZONTAL CENTER)



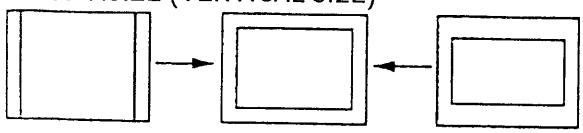
RV 801 H.SIZE (HORIZONTAL SIZE)



RV 501 V.CENT (VERTICAL CENTER)

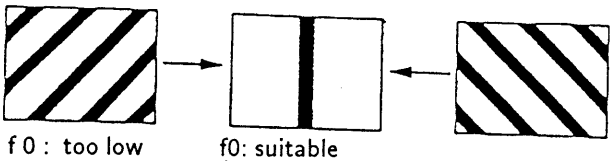


RV 505 V.SIZE (VERTICAL SIZE)



H.FREQ Adjustment (RV 502)

1. Input a PAL COLOR BAR signal, then connect an electrolytic capacitor (100 μ/16 V) between pin㉘ and GND of IC 502.
2. Adjust RV 502 (H.FREQ) to stop scrolling of the picture in the horizontal direction.
3. After adjustment, remove the electrolytic capacitor.



f 0 : too low

f0: suitable
f0: 15.625±50Hz

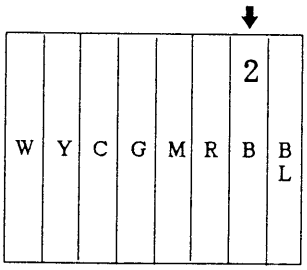
f 0 : too high

REF OSC 8.8 MHz Adjustment (CT 332)

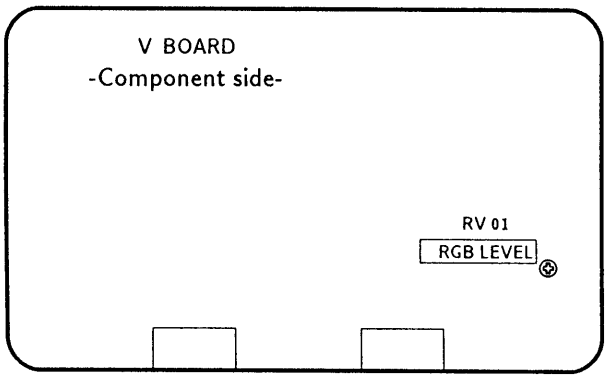
1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑪ of IC 331 and ground.
3. Adjust CT 332 to obtain color synchronizetion.
4. Remove the jumper wire from IC 331.

CHARACTER POSITION Adjustment (RV 001)

1. Input PAL COLOR BAR pattern.
2. Adjust RV 001 to position the charcter display at the point indicated by the arrow below.



4-2. V BOARD ADJUSTMENT

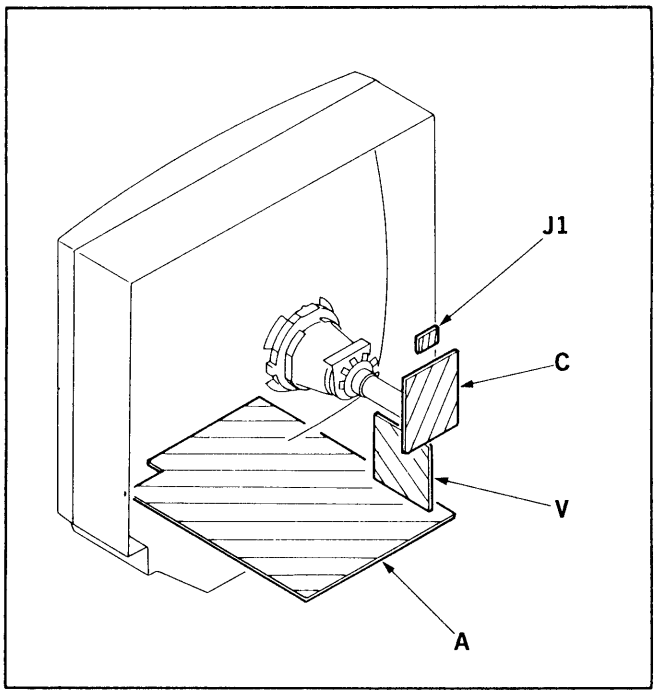


RGB LEVEL Adjustment (RV 01)

1. Set PICTURE to maximum.
2. Adjust RV01 till the RGB output becomes maximum.

SECTION 5
DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	:	RN	METAL FILM
	:	RC	SOLID
	:	FPRD	NONFLAMMABLE CARBON
	:	FUSE	NONFLAMMABLE FUSIBLE
	:	RS	NONFLAMMABLE WIREWOUNO
	:	RB	NONFLAMMABLE CEMENT
	:	*	ADJUSTMENT RESISTOR
COIL	:	LF-8L	MICRO INDUCTOR
CAPACITOR	:	TA	TANTALUM
	:	PS	STYROL
	:	PP	POLYPROPYLENE
	:	PT	MYLAR
	:	MPS	METALIZED POLYESTER
	:	MPP	METALIZED POLYPROPYLENE
	:	ALB	BIPOLAR
	:	ALT	HIGH TEMPERATUNE
	:	ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

- All capacitors are in μF unless otherwise noted. pF : μμF
  50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power is as follows.

Pitch	: 5mm
Rating electrical power	: 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ: 1000Ω, MΩ: 1000kΩ.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltage are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- : B+ bus.
- : Signal path. (RF)

[SYSTEM CONTROL, A/V OUT, H/V OUT, MEMORY, CHROMA] **A**

5-2. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

—A Board—

IC	
IC001	C-9
IC002	D-8
IC003	D-10
IC004	D-9
IC005	B-8
IC102	B-5
IC201	F-8
IC301	D-5
IC302	B-7
IC331	C-6
IC501	D-2
IC502	C-4
IC601	F-5
IC801	E-3
IC802	E-3

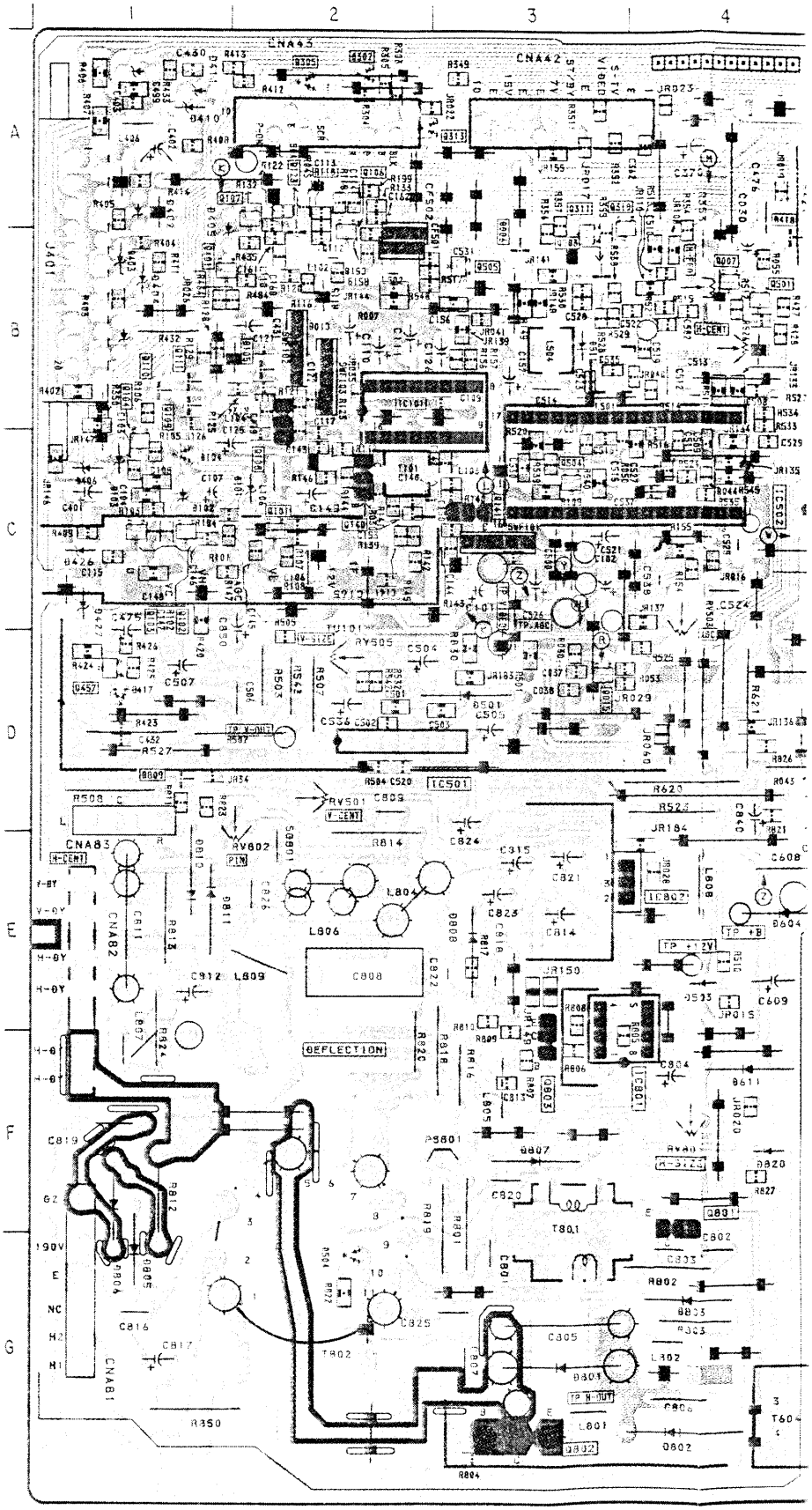
TRANSISTOR	
Q001	D-8
Q003	C-9
Q004	D-10
Q005	B-7
Q006	C-8
Q007	B-4
Q015	D-3
Q016	D-10
Q017	E-9
Q019	D-9
Q020	D-8
Q104	B-1
Q106	A-2
Q107	A-2
Q112	A-6
Q114	B-5
Q115	A-6
Q123	A-2
Q141	C-3
Q302	C-7
Q304	B-6
Q305	B-6
Q307	B-5
Q310	A-3
Q311	A-3
Q401	B-1
Q457	D-1
Q504	C-3
Q505	B-3
Q601	G-5
Q801	F-4
Q802	G-3
Q803	E-3
Q1301	B-9
Q1302	B-10
Q1304	A-10
Q1305	A-10
Q1306	B-10

DIODE	
D002	E-10
D004	C-9
D007	B-8
D008	D-10
D009	B-8
D011	D-8
D020	B-8
D110	C-5
D301	C-6
D302	A-2
D303	B-6
D305	A-2
D306	B-6
D313	A-2
D321	C-5
D324	A-7
D334	B-6
D402	A-1
D403	B-1
D404	B-1
D405	A-1
D406	C-1
D411	A-1
D412	C-8
D417	D-1
D418	A-4
D426	C-1
D427	C-1
D450	B-5
D501	D-3
D503	E-4
D504	G-2
D519	C-8
D601	F-7
D602	F-5
D603	F-5
D604	E-4
D605	E-6
D606	D-5
D607	G-5
D608	G-5
D609	G-5
D610	G-5
D611	F-4
D801	G-3
D802	G-4
D803	G-4
D805	F-1
D806	F-1
D807	F-3
D808	E-3
D820	F-4
D1301	B-9
D1302	B-10
D1303	B-10
D1304	A-10
D1305	A-10
D1306	B-10
D1307	B-10

VARIABLE RESISTOR	
RV001	D-9
RV501	D-2
RV502	B-4
RV503	C-4
RV504	B-4
RV505	D-2
RV801	F-4

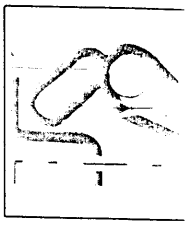
TRIMMER	
CT332	C-7

—A Board—



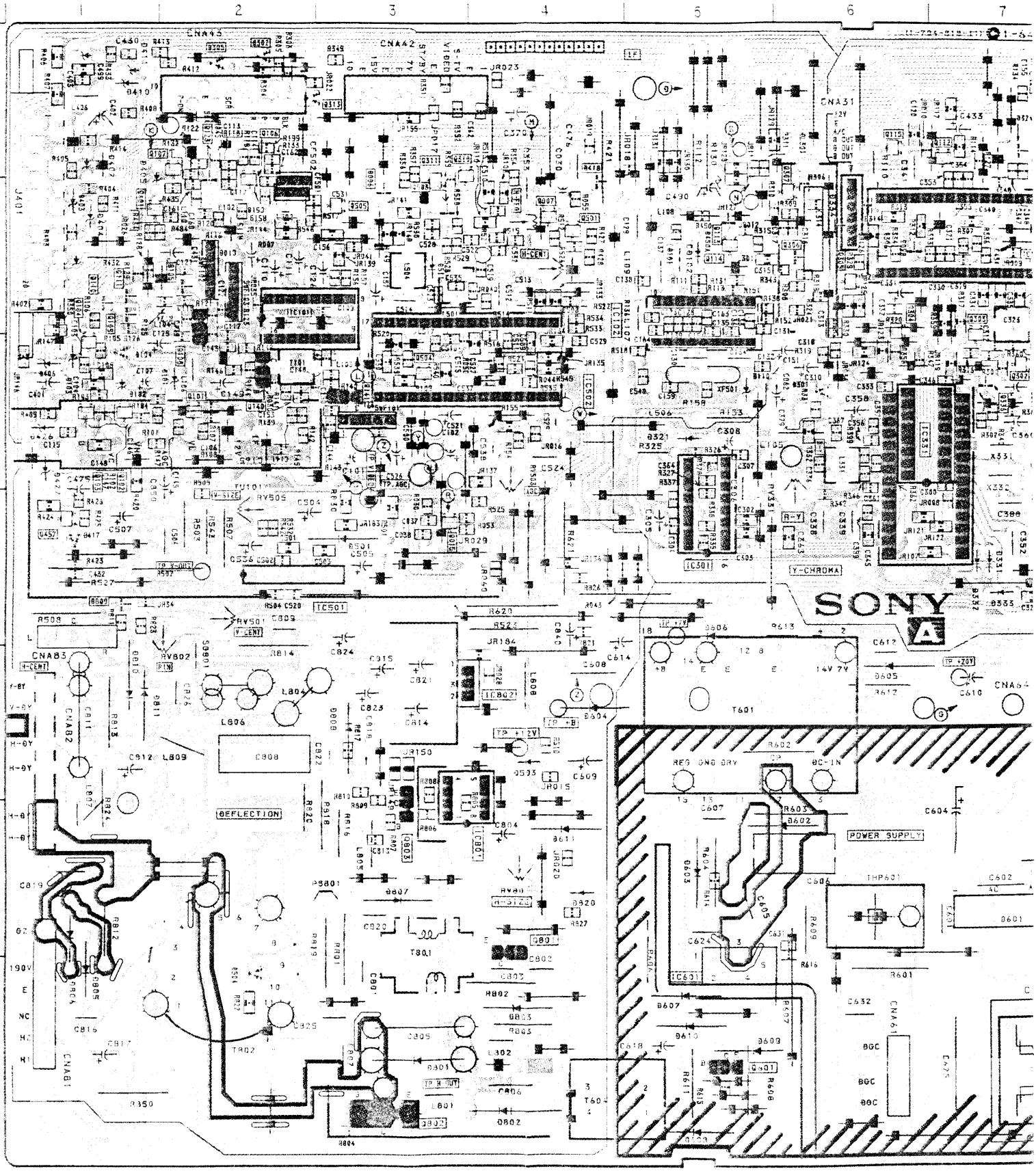
For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4QY.
Tel (01844) 351694
Fax (01844) 352554
email:- sales@mauritron.co.uk

[SYSTEM CONTROL, A/V OUT, H/V OUT, MEMORY, CHROMA] **A** **A**



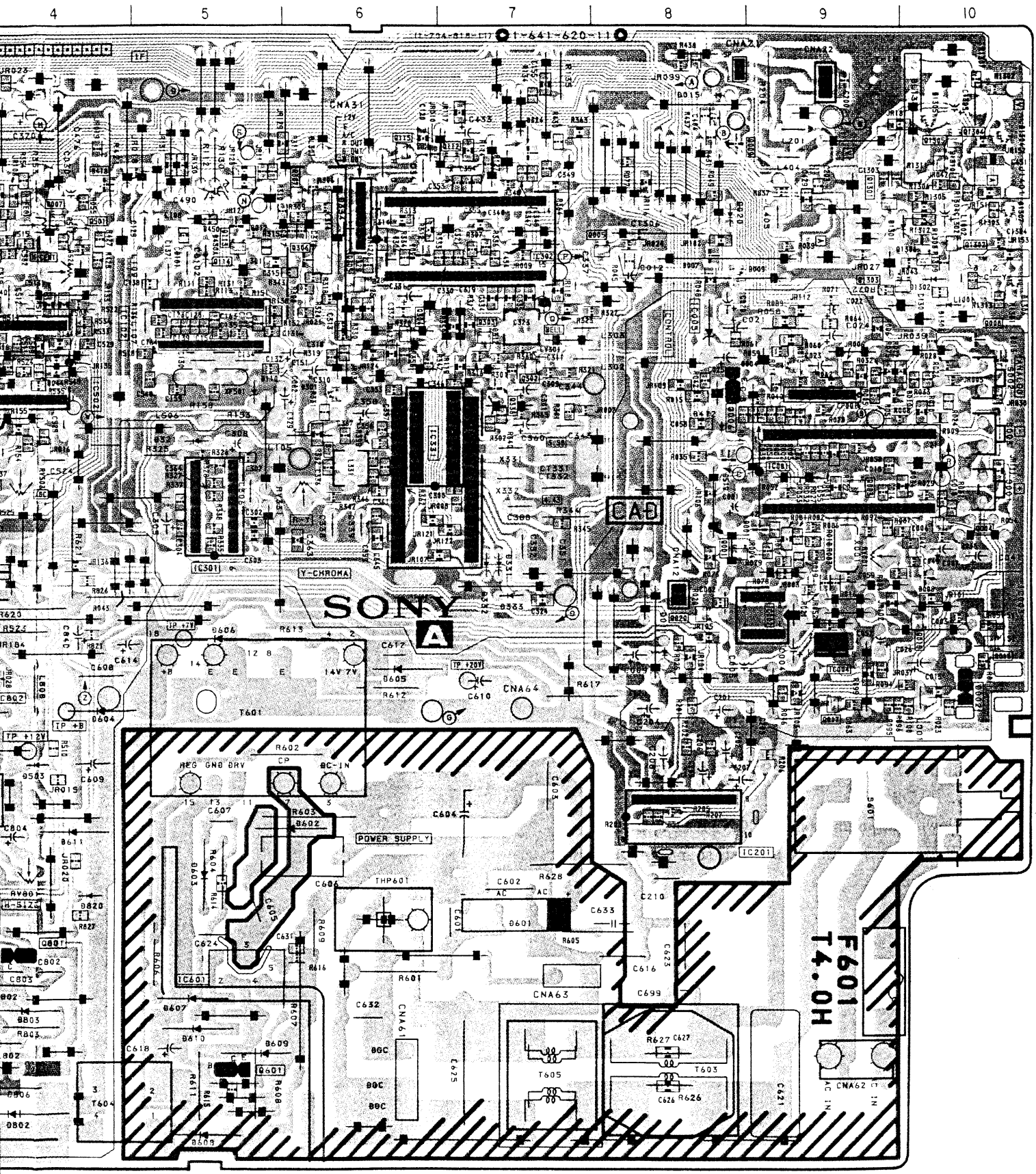
AND PRINTED WIRING BOARDS

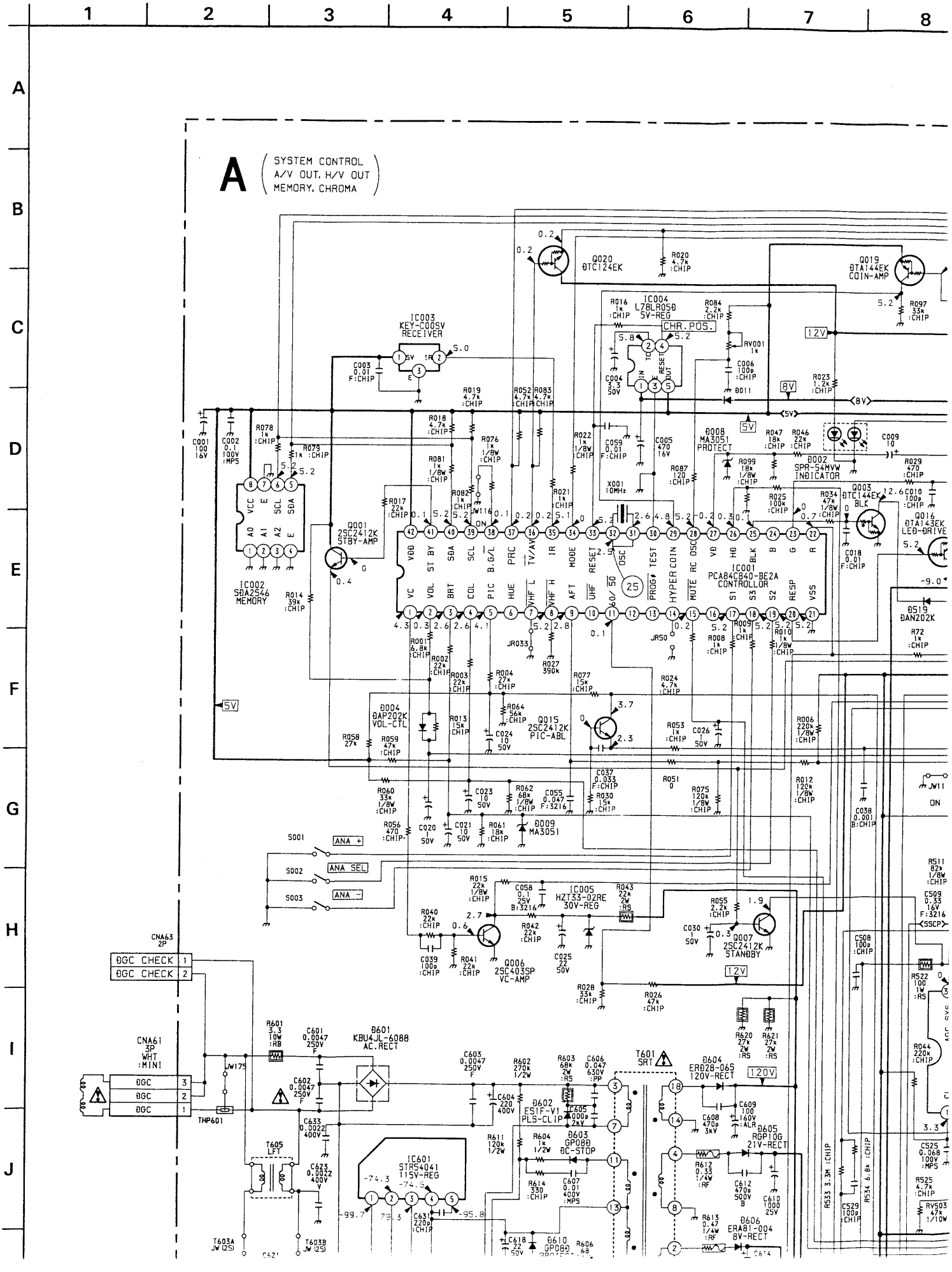
— A Board —

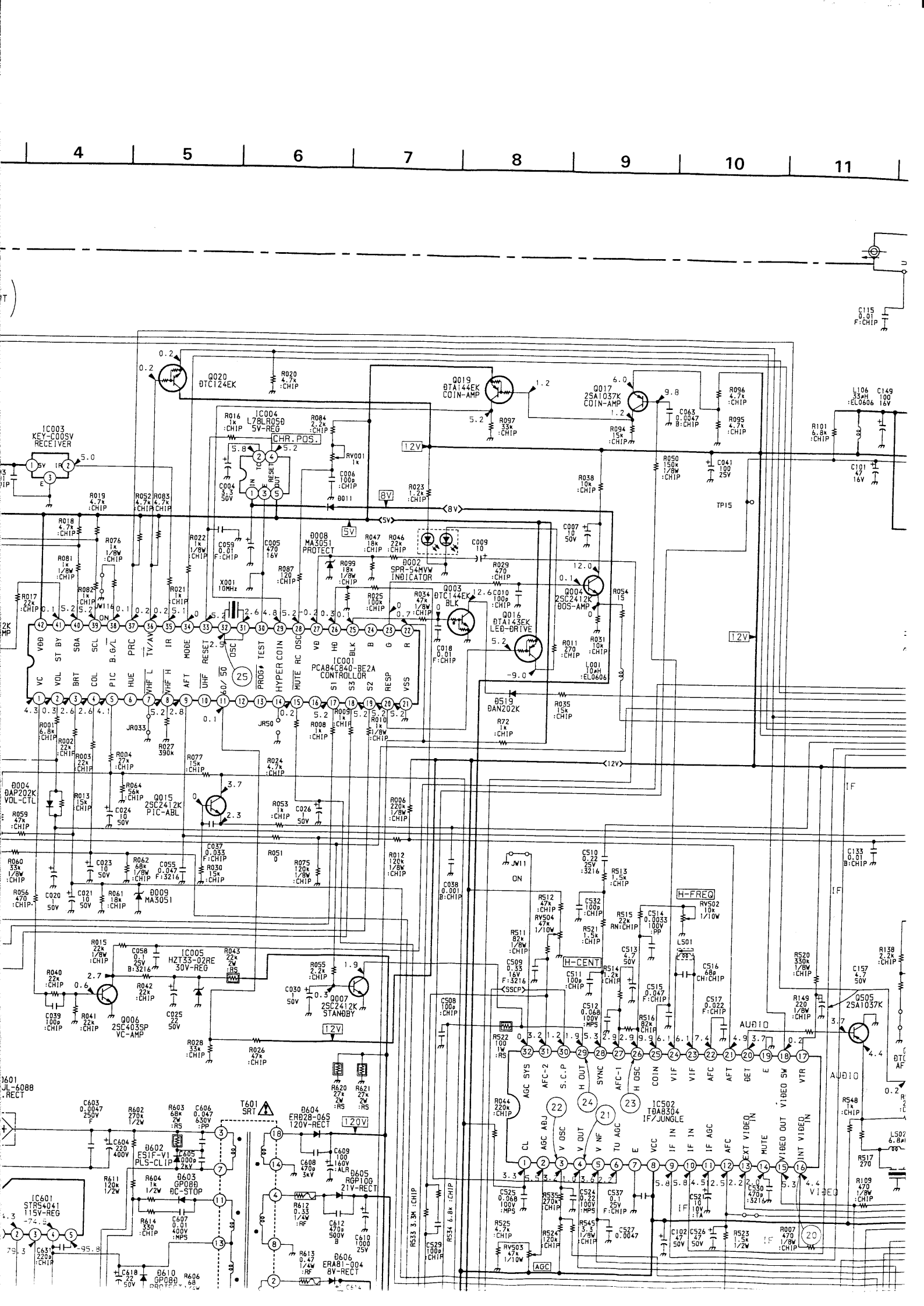


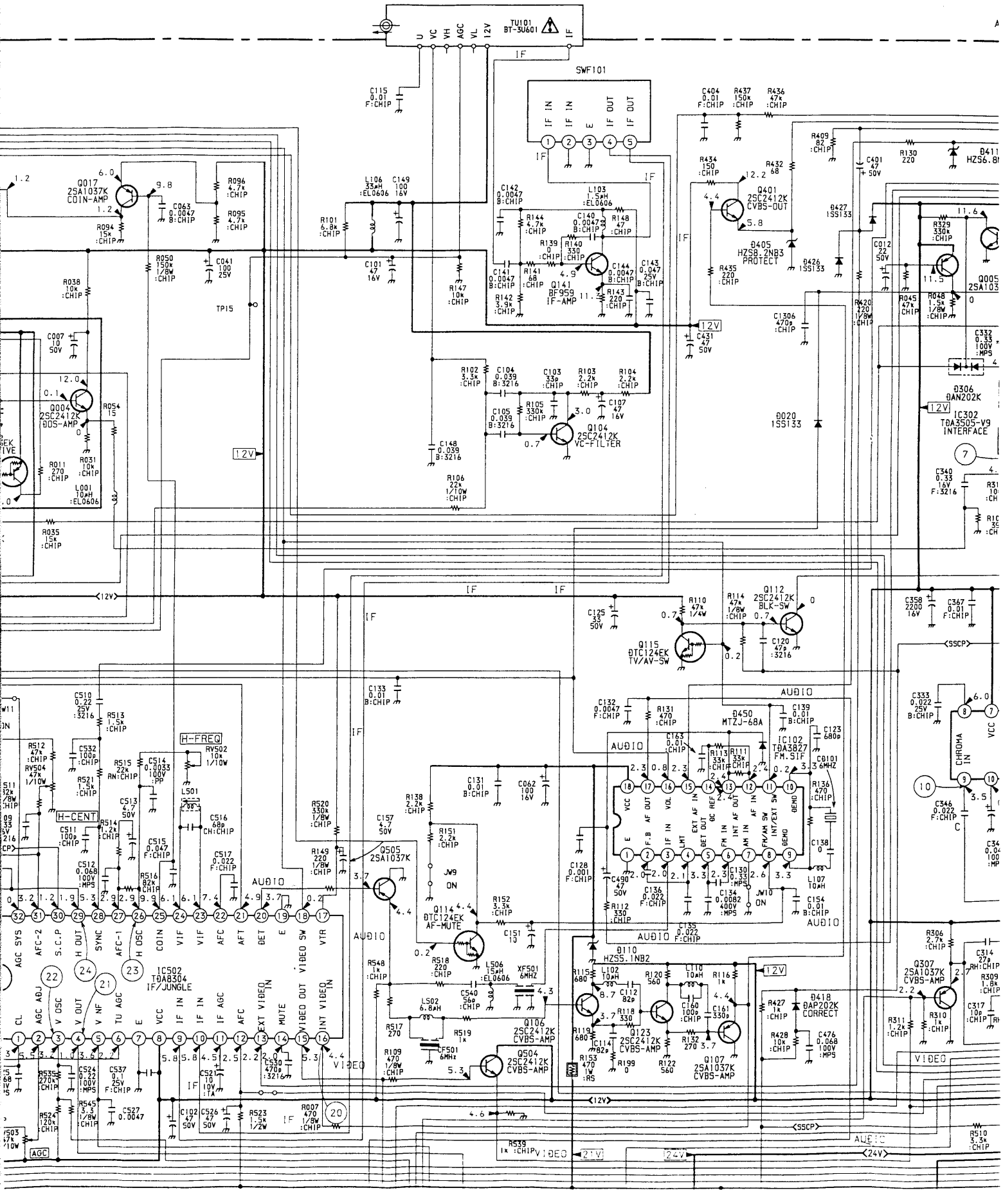
A

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.




A
SYSTEM CONTROL
A/V OUT, H/V OUT
MEMORY, CHROMA
IC003
KEY-C005V
RECEIVER
IC004
L78L05B
5V-REG
CHR. POS.
Q020
DTC124EK
Q019
DTA144EK
COIN-AMP
Q001
2SC2412K
STBY-AMP
IC002
SDA2546
MEMORY
IC001
PCA84C840-BE2A
CONTROLLOR
D008
MA3051
PROTECT
D002
SPR-54MVW
INDICATOR
Q003
DTC144EK
BLK
Q016
DTA143EK
LED-DRIVE
D519
DAN202K
D004
DAP202K
VOL-CTL
Q015
2SC2412K
PIC-ABL
D009
MA3051
IC005
HZT33-02RE
30V-REG
Q006
2SC403SP
VC-AMP
Q007
2SC2412K
STANDBY
CNA63
2P
DGC CHECK
CNA61
3P
WHT
MINI
D601
KBU4JL-6088
AC.RECT
T601
SRT
D604
ER828-065
120V-RECT
D605
RGP10G
21V-RECT
D606
ERA81-004
8V-RECT
IC601
STR54041
115V-REG
D602
ESIF-V1
PLS-CLIP
D603
GP08B
DC-STOP
T605
LFT
THP601
JW175
JW11
ON
5V
8V
12V
120V
ANA +
ANA SEL
ANA -


4
5
6
7
8
9
10
11
IC001
PCA84C840-BE2A
CONTROLLOR
IC002
T0A8304
IF/JUNGLE
IC003
KEY-C005V
RECEIVER
IC004
L78LR05D
5V-REG
IC005
HZT33-02RE
30V-REG
IC601
STR54041
115V-REG
Q001
2SA1037K
VIDEO-AMP
Q002
SPR-54MVW
INDICATOR
Q003
DTC144EK
BLK
Q004
2SC2412K
DEF-AMP
Q005
2SA1037K
AUDIO
Q006
2SC4035P
VC-AMP
Q007
2SC2412K
STANDBY
Q015
2SC2412K
PIC-ABL
Q016
DTA143EK
LED-DRIVE
Q017
2SA1037K
COIN-AMP
Q019
DTA144EK
COIN-AMP
Q020
DTC124EK
D002
MA3051
PROTECT
D004
DAP202K
VOL-CTL
D009
MA3051
D602
ES1F-V1
PLS-CLIP
D603
GP08B
DC-STOP
D604
ERB28-06S
120V-RECT
D605
RGP10G
21V-RECT
D606
ERA81-004
8V-RECT
D610
GP06D
D611
DAN202K
T601
SRT
H-FREQ
H-CENT
SSCP
CHR. POS.
ON
TP15
12V
8V
5V
120V
AGC
IF
VIDEO
AUDIO


9
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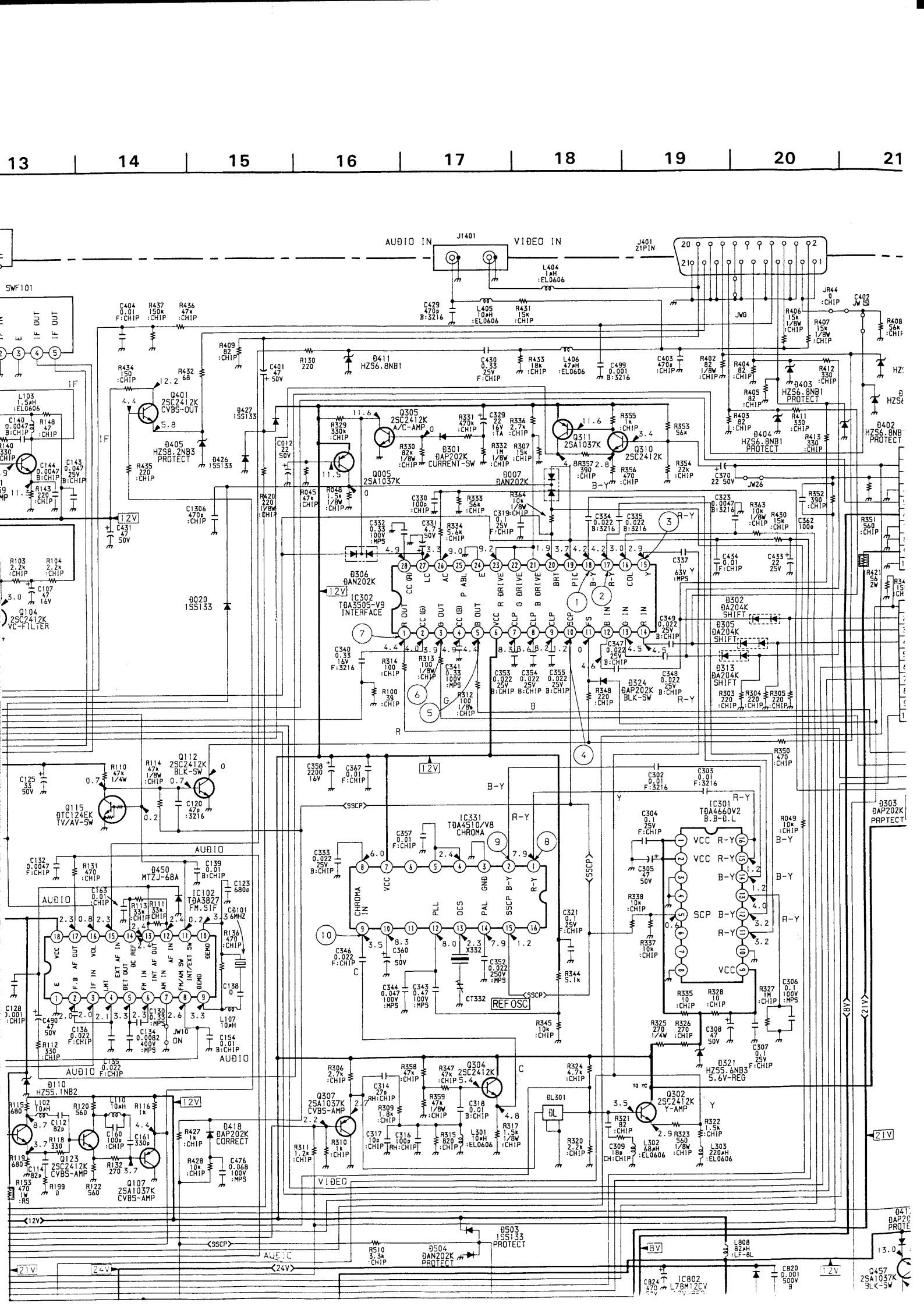
TU101 BT-3U601
U VC VH AGC VL 12V IF
SWF101
IF IN IF IN E IF OUT IF OUT
Q017 2SA1037K COIN-AMP
Q004 2SC2412K DOS-AMP
Q141 BF959 IF-AMP
Q104 2SC2412K VC-FILTER
Q401 2SC2412K CVBS-OUT
Q405 HZS8.2NB3 PROTECT
Q112 2SC2412K BLK-SW
Q115 DTC124EK TV/AV-SW
Q114 DTC124EK AF-MUTE
Q505 2SA1037K
Q110 HZS5.1NB2
Q123 2SC2412K CVBS-AMP
Q504 2SC2412K CVBS-AMP
Q106 2SC2412K CVBS-AMP
Q107 2SA1037K CVBS-AMP
Q307 2SA1037K CVBS-AMP
IC502 TDA8304 IF/JUNGLE
IC102 TDA3827 FM.SIF
IC302 TDA3505-V9 INTERFACE
D450 MTZJ-6.8A
D405 HZS8.2NB3 PROTECT
D418 DAP202K CORRECT
D020 1SS133
D306 DAN202K
H-FREQ
H-CENT
AUDIO
VIDEO
CHROMA IN
AGC
12V
24V
SSCP
IF


13
14
15
16
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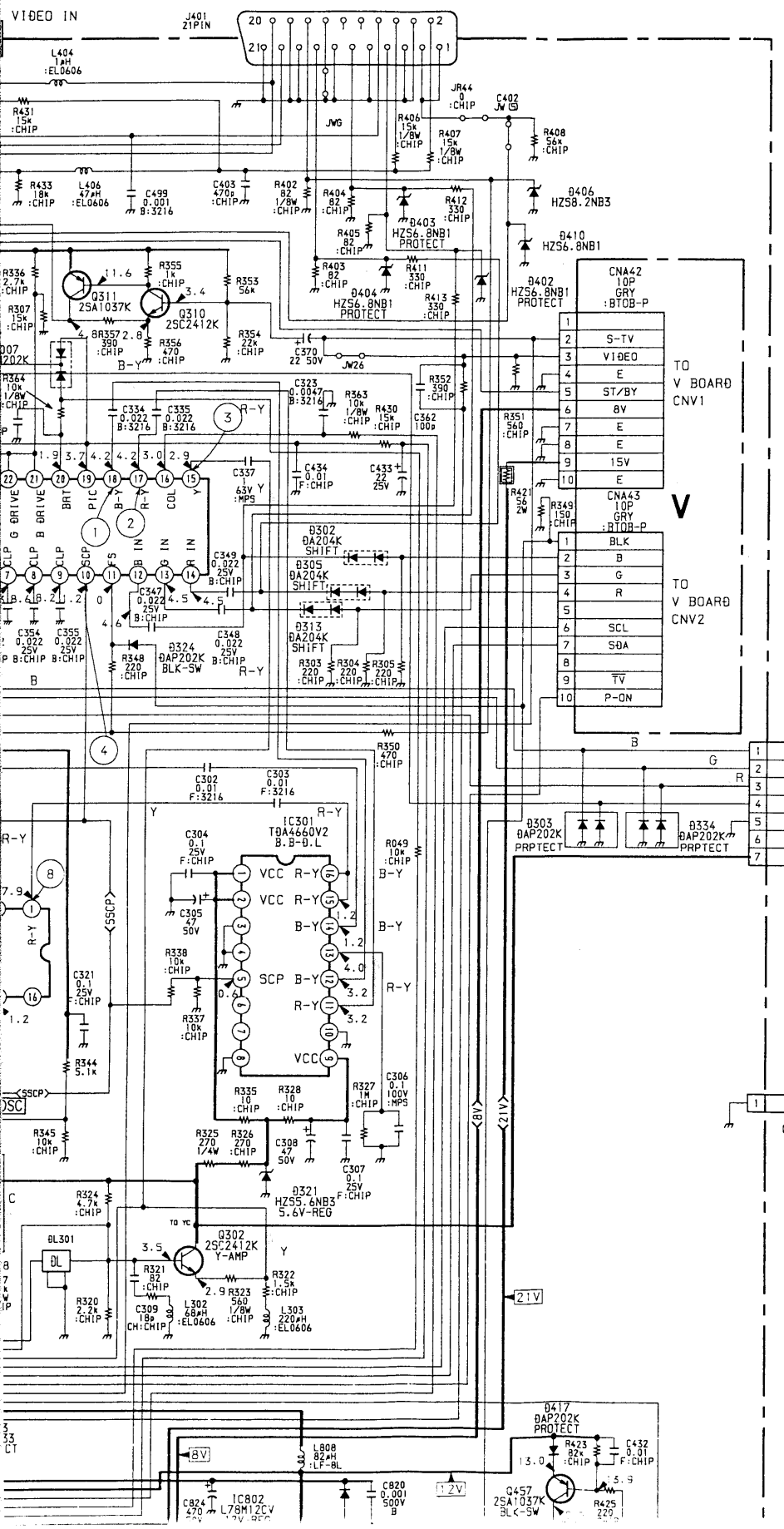
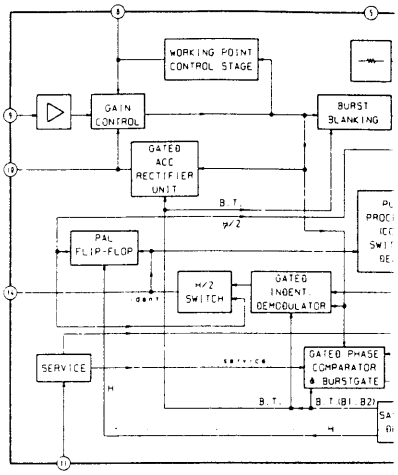
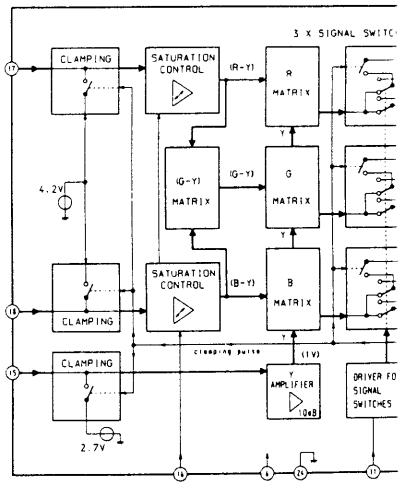
18
19
20
21
AUDIO IN
J1401
VIDEO IN
J401
21P1N
SWF101
IC302
T0A3505-V9
INTERFACE
IC331
T0A4510/V8
CHROMA
IC301
T0A4660V2
B.B-B.L
IC102
T0A3827
FM.SIF
Q115
0TC124EK
TV/AV-SW
REF OSC
AUDIO
VIDEO
12V
21V
24V
8V



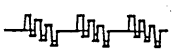
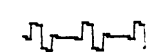
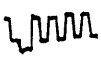
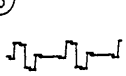
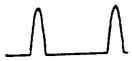
A BOARD IC331 TDA4510-V8



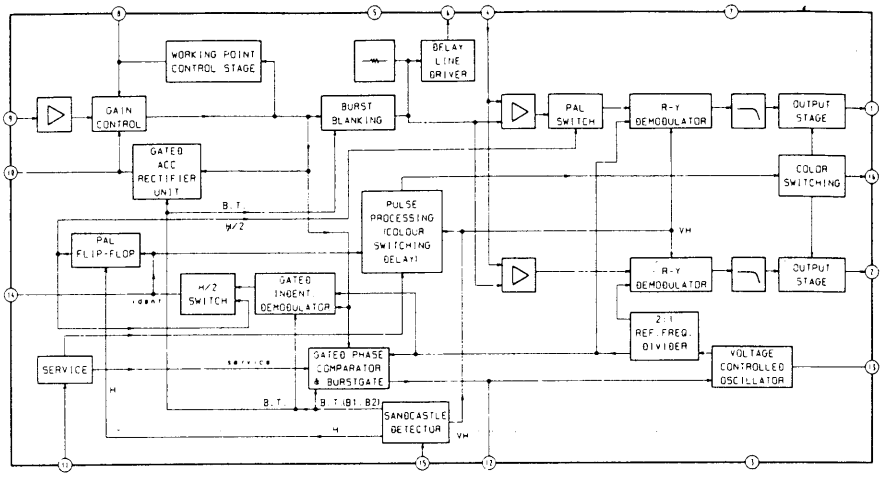
A BOARD IC302 TDA3505-V9



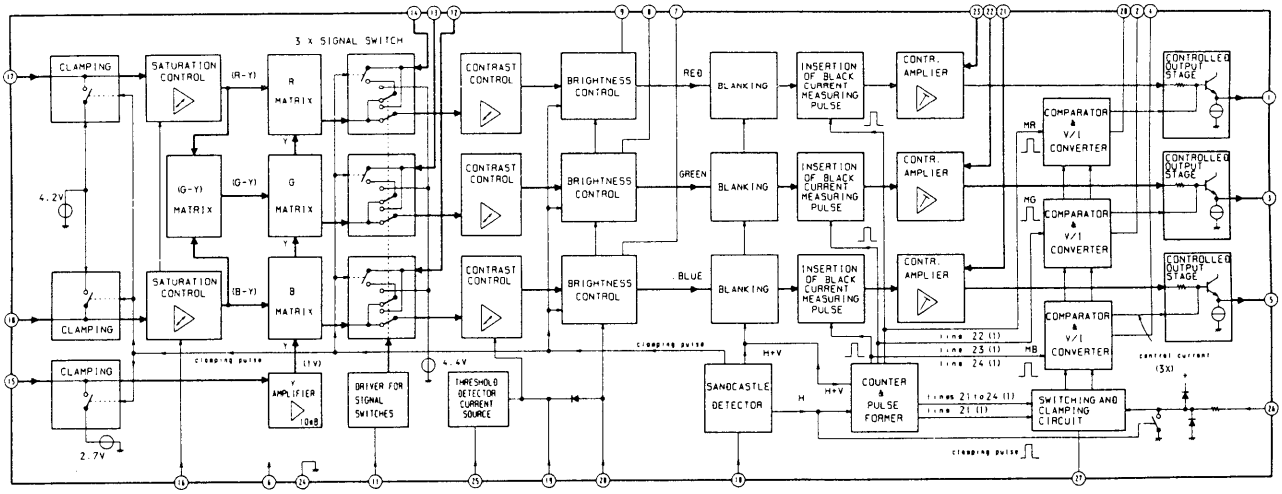
• A Board

①  1.5Vp-p (H)	②  1.2Vp-p (
④ 7.5Vp-p (H)	⑤  2.4 Vp-p (
⑦ 2.5Vp-p (H)	⑧  0.6Vp-p (
⑩ 0.24Vp-p (H)	⑪  750Vp-p (

A BOARD IC331 TDA4510-V8



A BOARD IC302 TDA3505-V9



CNA31
7P
WHT

B OUT
G OUT
R OUT
A/C
E
N/C
12V

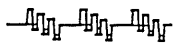
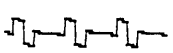
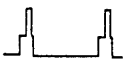
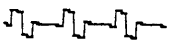
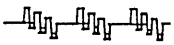
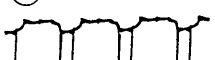
TO C BOARD CNC73

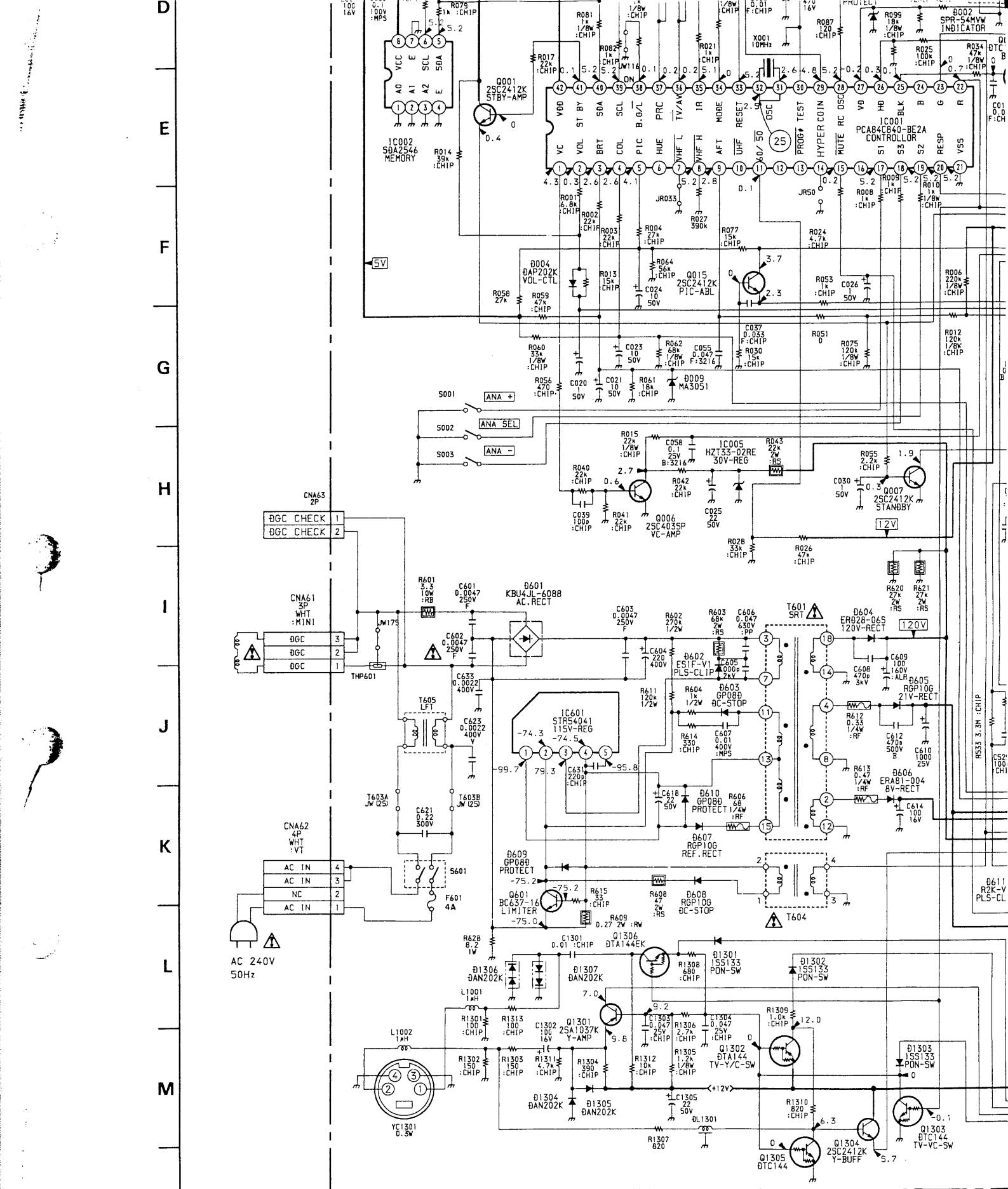
E

TO COATING E

CNA64
1P
WHT
MINI

• A Board

①  1.5Vp-p (H)	②  1.2Vp-p (H)	③ 0.38Vp-p (H)
④  7.5Vp-p (H)	⑤ 2.4 Vp-p (H)	⑥ 2.5 Vp-p (H)
⑦ 2.5Vp-p (H)	⑧  0.6Vp-p (H)	⑨  0.6 Vp-p (H)
⑩ 0.24Vp-p (H)	⑪ 750Vp-p (H)	⑫  12 Vp-p (H)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S0A2546
MEMORY
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STBY-AMP
IC001
PCA84C840-BE2A
CONTROLLOR
Q015
2SC2412K
PIC-ABL
D004
DAP202K
VOL-CTL
D009
MA3051
IC005
HZT33-02RE
30V-REG
Q006
2SC4035P
VC-AMP
Q007
2SC2412K
STANDBY
S001
ANA +
S002
ANA SEL
S003
ANA -
CNA63
2P
AGC CHECK
AGC CHECK
CNA61
3P
WHT
:MINI
AGC
CNA62
4P
WHT
:VT
AC IN
NC
D601
KBU4JL-6088
AC.RECT
D602
ES1F-V1
PLS-CLIP
D603
GP08D
DC-STOP
D604
ER828-06S
120V-RECT
D605
RGP10G
21V-RECT
D606
ERA81-004
8V-RECT
D607
RGP10G
REF.RECT
D608
RGP10G
DC-STOP
D609
GP08D
PROTECT
D610
GP08D
PROTECT
IC601
STR54041
115V-REG
Q601
BC637-16
LIMITER
T601
SRT
T604
T605
LF1
T603A
T603B
S601
F601
4A
THP601
AC 240V
50Hz
Q1301
2SA1037K
Y-AMP
Q1302
DTA144
TV-Y/C-SW
Q1303
DTC144
TV-VC-SW
Q1304
2SC2412K
Y-BUFF
Q1305
DTC144
D1301
1SS133
PON-SW
D1302
1SS133
PON-SW
D1303
1SS133
PON-SW
D1306
DAN202K
D1307
DAN202K
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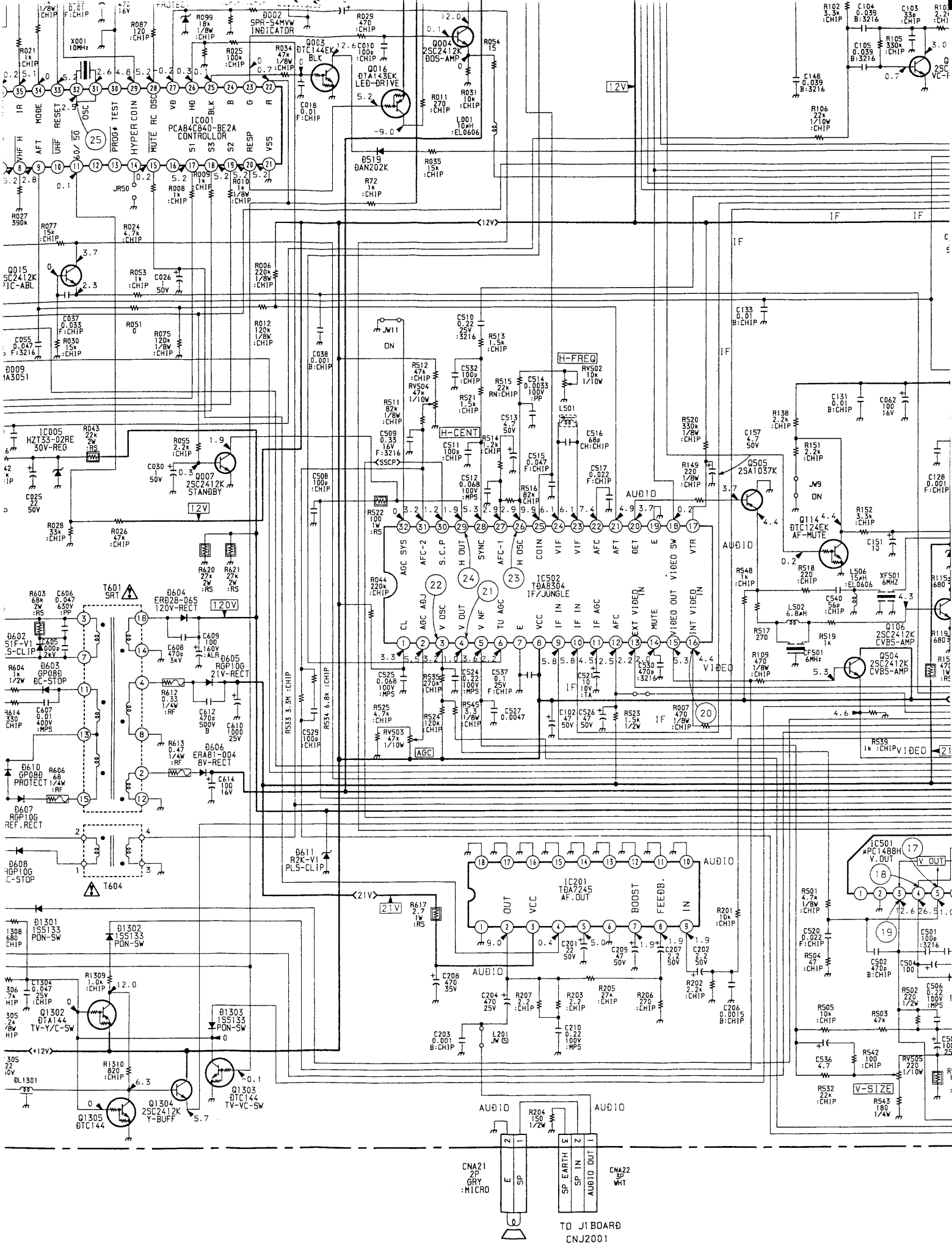
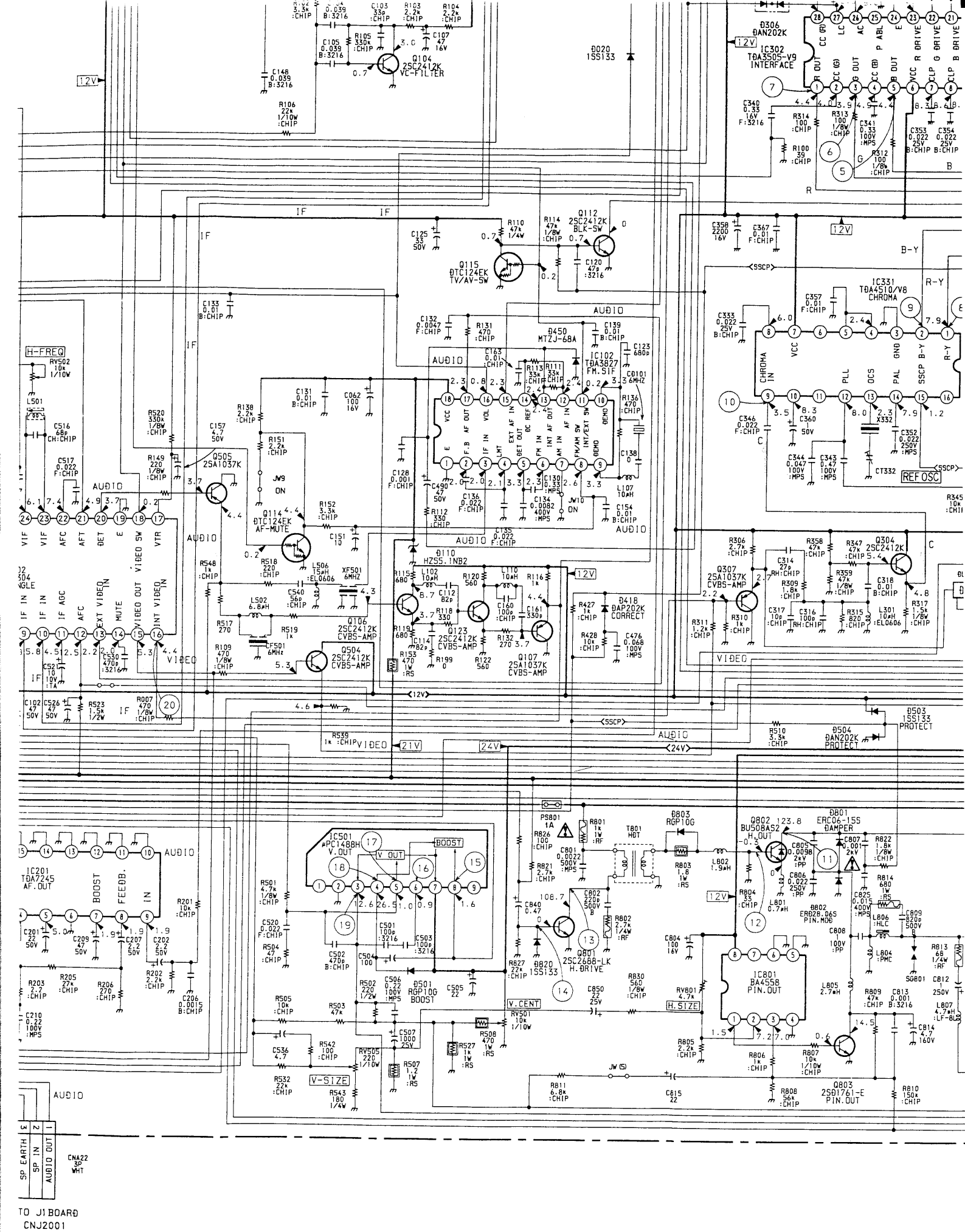
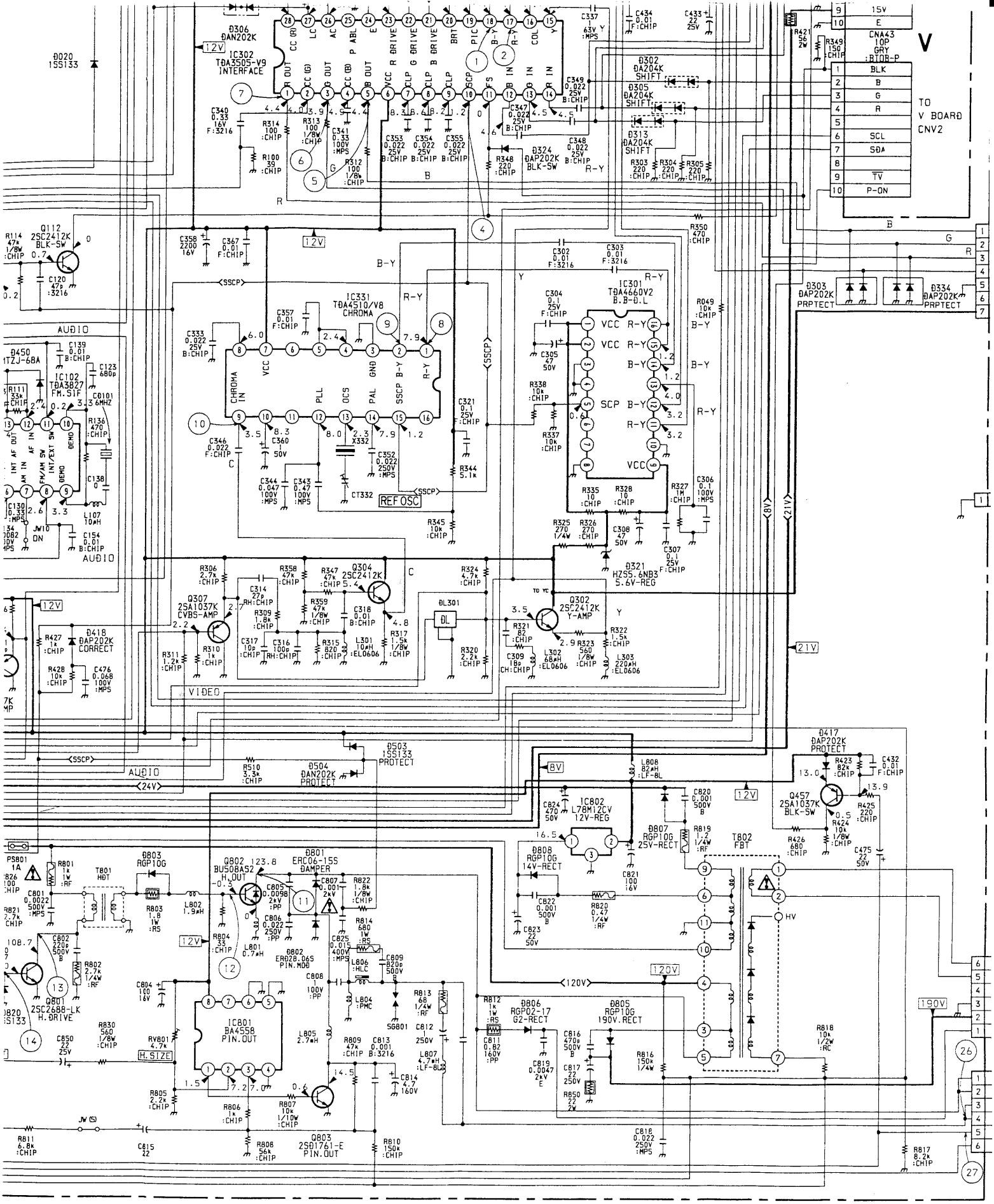
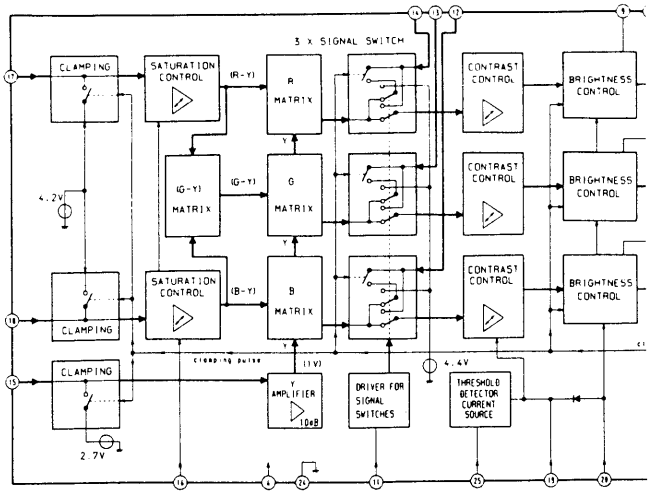
YC1301
0.3W
5V
12V
120V
+12V


IC001
PCA84C840-BE2A
CONTROLLER
IC005
HZT33-02RE
30V-REG
IC502
TDA8304
IF/JUNGLE
IC201
TDA7245
AF.OUT
IC501
μPC1488H
V.OUT
Q1301
1SS133
PON-SW
Q1302
DTA144
TV-Y/C-SW
Q1303
DTC144
TV-VC-SW
Q1304
2SC2412K
Y-BUFF
Q1305
DTC144
T601
SRT
T604
CNA21
2P
GRY
:MICRO
CNA22
3P
WHT
TO J1 BOARD
CNJ2001
12V
21V
AUDIO
IF
H-FREQ
H-CENT
AGC
V-SIZE
VIDEO


IC302 TDA3505-V9 INTERFACE
IC331 TDA4510/V8 CHROMA
IC102 TDA3827 FM.SIF
IC201 TDA7245 AF.OUT
IC501 μPC1488H V.OUT
IC801 BA4558 PIN.OUT
Q115 DTC124EK TV/AV-SW
Q112 2SC2412K BLK-SW
Q114 DTC124EK AF-MUTE
Q505 2SA1037K
Q110 HZS5.1NB2
Q106 2SC2412K CVBS-AMP
Q504 2SC2412K CVBS-AMP
Q123 2SC2412K CVBS-AMP
Q107 2SA1037K CVBS-AMP
Q307 2SA1037K CVBS-AMP
Q304 2SC2412K
Q104 2SC2412K VC-FILTER
Q801 2SC2688-LK H.DRIVE
Q802 BU508AS2 H.OUT
Q803 2SD1761-E PIN.OUT
D306 DAN202K
D020 1SS133
D450 MTZJ-6.8A
D418 DAP202K CORRECT
D503 1SS133 PROTECT
D504 DAN202K PROTECT
D803 RGP10G
D801 ERC06-15S DAMPER
D802 ER02B.06S PIN.MOD
D501 RGP10G BOOST
D820 1SS133
REF OSC
H-FREQ
AUDIO
VIDEO
IF
BOOST
V.CENT
H.SIZE
V-SIZE
SP EARTH
SP IN
AUDIO OUT
CNA22
TO J1 BOARD
CNJ2001


IC302
T0A3505-V9
INTERFACE
IC331
T0A4510/V8
CHROMA
IC301
T0A4660V2
B.B-D.L
IC102
T0A3827
FM.SIF
IC801
BA4558
PIN.OUT
IC802
L78M12CV
12V-REG
REF OSC
VIDEO
AUDIO
CNA43
10P
GRY
:BTOB-P
TO
V BOARD
CNV2
DY
H.DY
H.DY V.DY
V.DY

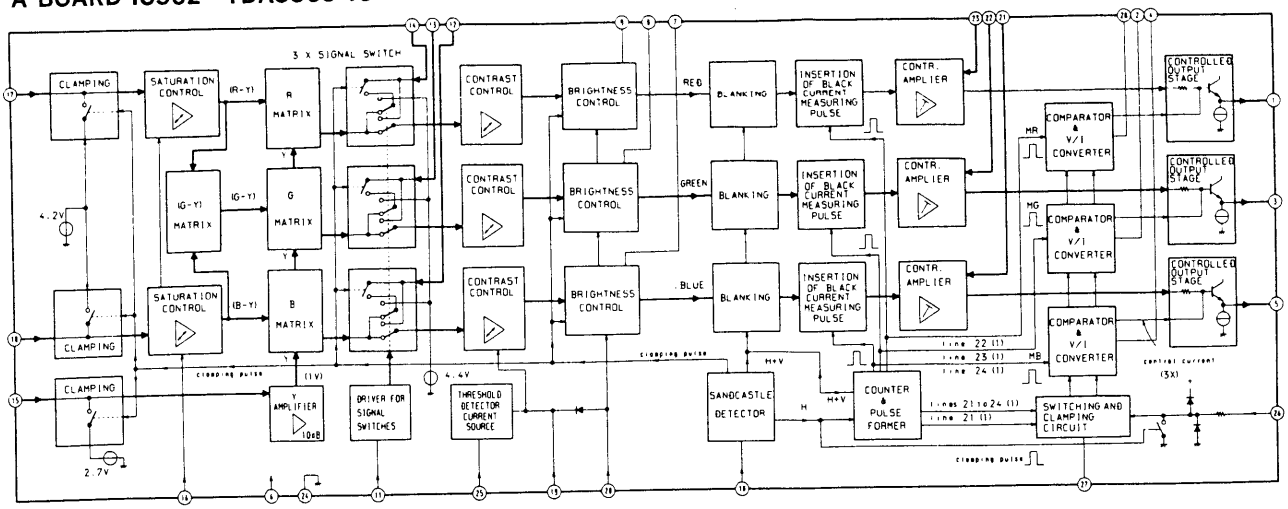
A BOARD IC302 TDA3505-V9



• A Board

① 1.5Vp-p (H)	② 1.2Vp-p (H)	③ 0.38Vp-p (H
④ 7.5Vp-p (H)	⑤ 2.4 Vp-p (H)	⑥ 2.5 Vp-p(H
⑦ 2.5Vp-p (H)	⑧ 0.6Vp-p (H)	⑨ 0.6 Vp-p (H
⑩ 0.24Vp-p (H)	⑪ 750Vp-p (H)	⑫ 12 Vp-p (H
⑬ 250Vp-p (H)	⑭ 3.4Vp-p (H)	⑮ 2.0Vp-p (V
⑯ 2.5Vp-p (V)	⑰ 1.5Vp-p (V)	⑱ 2.2Vp-p (V
⑲ 50Vp-p (V)	⑳ 1.7Vp-p (H)	㉑ 5.2 Vp-p (V
㉒ 2.0Vp-p (V)	㉓ 1.8 Vp-p (H)	㉔ 2.8 Vp-p(H
㉕ 1.7Vp-p (10MHz)	㉖ 200Vp-p(H)	㉗ 4.2 Vp-p (V

A BOARD IC302 TDA3505-V9



TO C BOARD CNC73

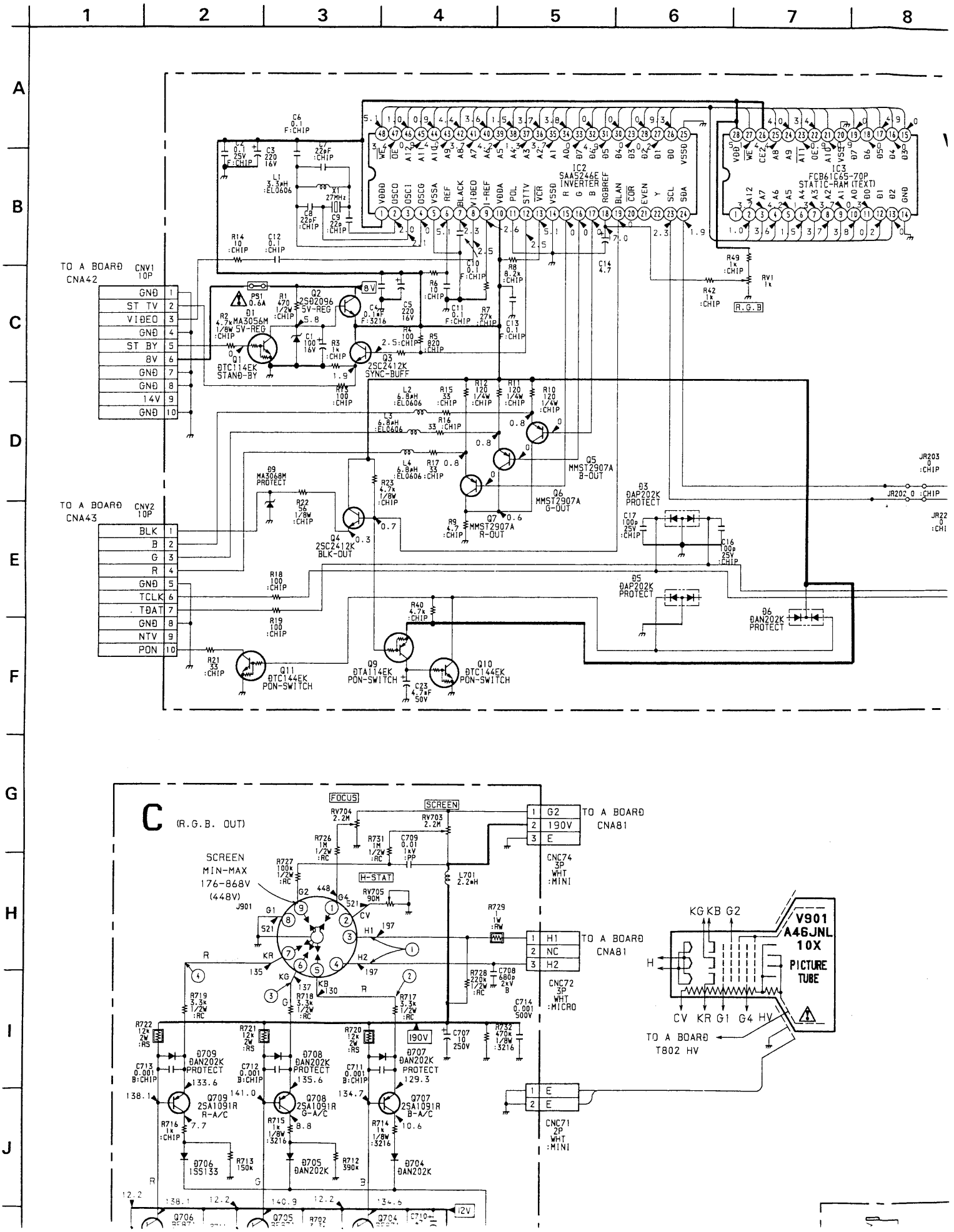
TO COATING E

TO C BOARD CNC72

TO C BOARD CNC74

• A Board

① 1.5Vp-p (H)	② 1.2Vp-p (H)	③ 0.38Vp-p (H)
④ 7.5Vp-p (H)	⑤ 2.4 Vp-p (H)	⑥ 2.5 Vp-p (H)
⑦ 2.5Vp-p (H)	⑧ 0.6Vp-p (H)	⑨ 0.6 Vp-p (H)
⑩ 0.24Vp-p (H)	⑪ 750Vp-p (H)	⑫ 12 Vp-p (H)
⑬ 250Vp-p (H)	⑭ 3.4Vp-p (H)	⑮ 2.0Vp-p (V)
⑯ 2.5Vp-p (V)	⑰ 1.5Vp-p (V)	⑱ 2.2Vp-p (V)
⑲ 50Vp-p (V)	⑳ 1.7Vp-p (H)	㉑ 5.2 Vp-p (V)
㉒ 2.0Vp-p (V)	㉓ 1.8 Vp-p (H)	㉔ 2.8 Vp-p (H)
㉕ 1.7Vp-p (10MHz)	㉖ 200Vp-p (H)	㉗ 4.2 Vp-p (V)


C
(R.G.B. OUT)
FOCUS
SCREEN
SCREEN
MIN-MAX
176-868V
(448V)
H-STAT
TO A BOARD
CNA81
CNC74
3P
WHT
:MINI
CNC72
3P
WHT
:MICRO
CNC71
2P
WHT
:MINI
V901
A46JNL
10X
PICTURE
TUBE
KG KB G2
CV KR G1 G4 HV
TO A BOARD
T802 HV
TO A BOARD
CNA42
CNV1
10P
TO A BOARD
CNA43
CNV2
10P
IC2
SAA5246E
INVERTER
IC3
FCB61C65-70P
STATIC-RAM (TEXT)
R.G.B
Q1
DTC114EK
STAND-BY
Q2
2SD2096
5V-REG
Q3
2SC2412K
SYNC-BUFF
Q4
2SC2412K
BLK-OUT
Q5
MMST2907A
B-OUT
Q6
MMST2907A
G-OUT
Q7
MMST2907A
R-OUT
Q9
DTA114EK
PON-SWITCH
Q10
DTC144EK
PON-SWITCH
Q11
DTC144EK
PON-SWITCH
Q709
2SA1091R
R-A/C
Q708
2SA1091R
G-A/C
Q707
2SA1091R
B-A/C
D1
MA3056M
5V-REG
D3
DAP202K
PROTECT
D5
DAP202K
PROTECT
D6
DAN202K
PROTECT
D9
MA3068M
PROTECT
D709
DAN202K
PROTECT
D708
DAN202K
PROTECT
D707
DAN202K
PROTECT
D706
1SS133
D705
DAN202K
D704
DAN202K
J901
L701
2.2mH
RV704
2.2M
RV703
2.2M
RV705
90M
R729
1W
:RW
R726
1M
1/2W
:RC
R731
1M
1/2W
:RC
C709
0.01
1kV
:PP
R727
100k
1/2W
:RC
R728
220k
1/2W
:RC
C708
680p
2kV
B
C714
0.001
500V
C707
10
250V
R732
470k
1/8W
:3216
R719
3.3k
1/2W
:RC
R718
3.3k
1/2W
:RC
R717
3.3k
1/2W
:RC
R722
12k
2W
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R721
12k
2W
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R720
12k
2W
:RS
190V
12V
R716
1k
:CHIP
R715
1k
1/8W
:3216
R714
1k
1/8W
:3216
R713
150k
R712
390k
C713
0.001
B:CHIP
C712
0.001
B:CHIP
C711
0.001
B:CHIP
R
G
B
138.1
140.9
134.6
133.6
135.6
129.3
141.0
134.7
12.2
JR203
0
:CHIP
JR202_0
:CHIP
JR22
0
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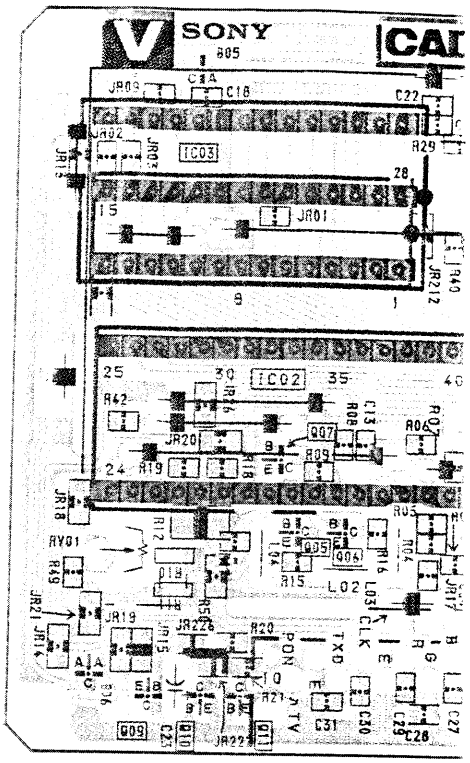
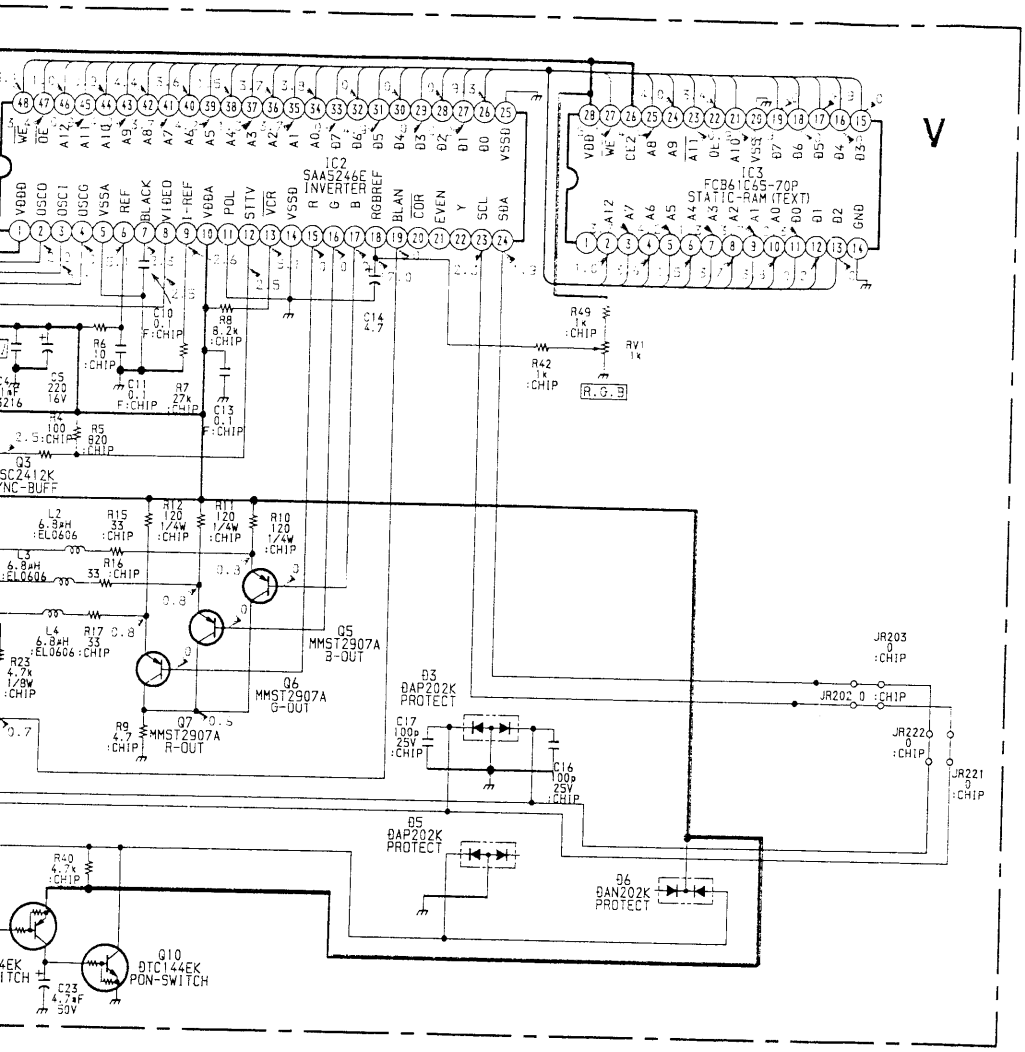
— V Board —





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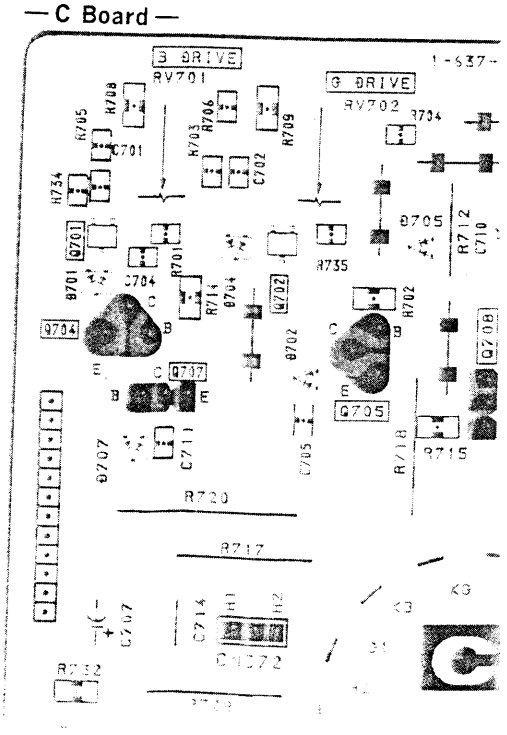

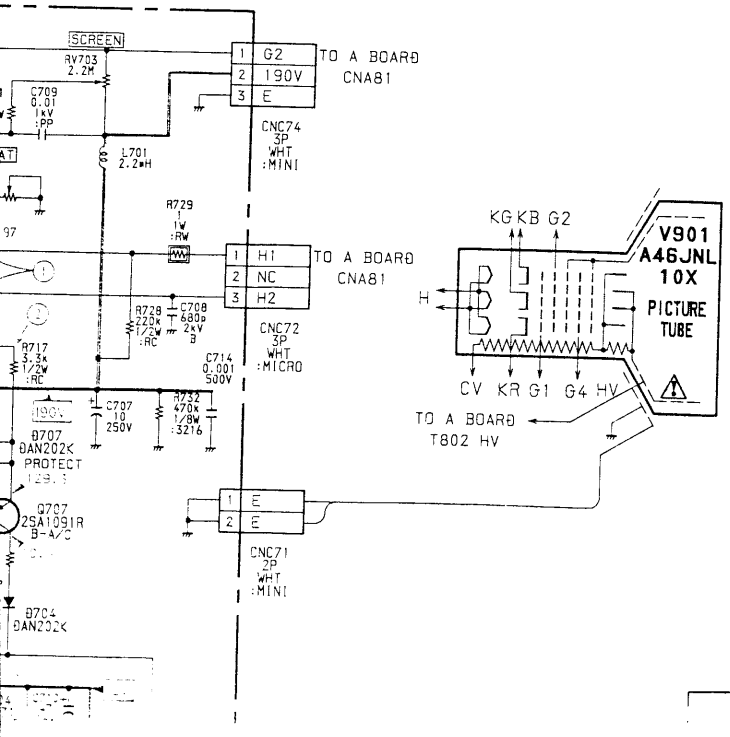

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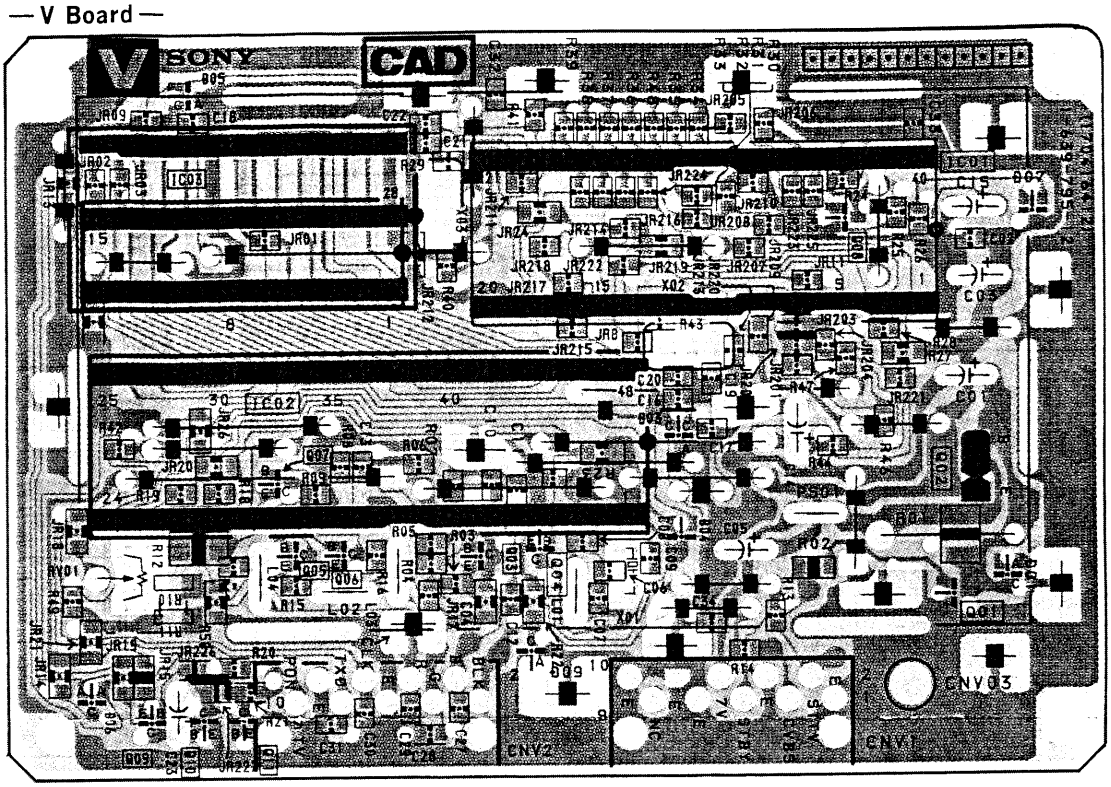

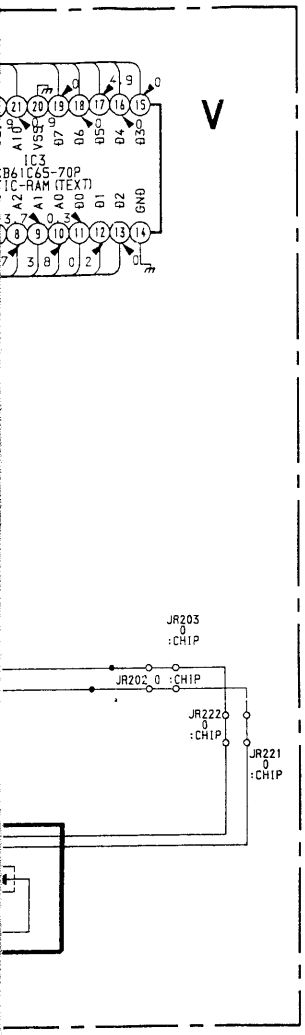

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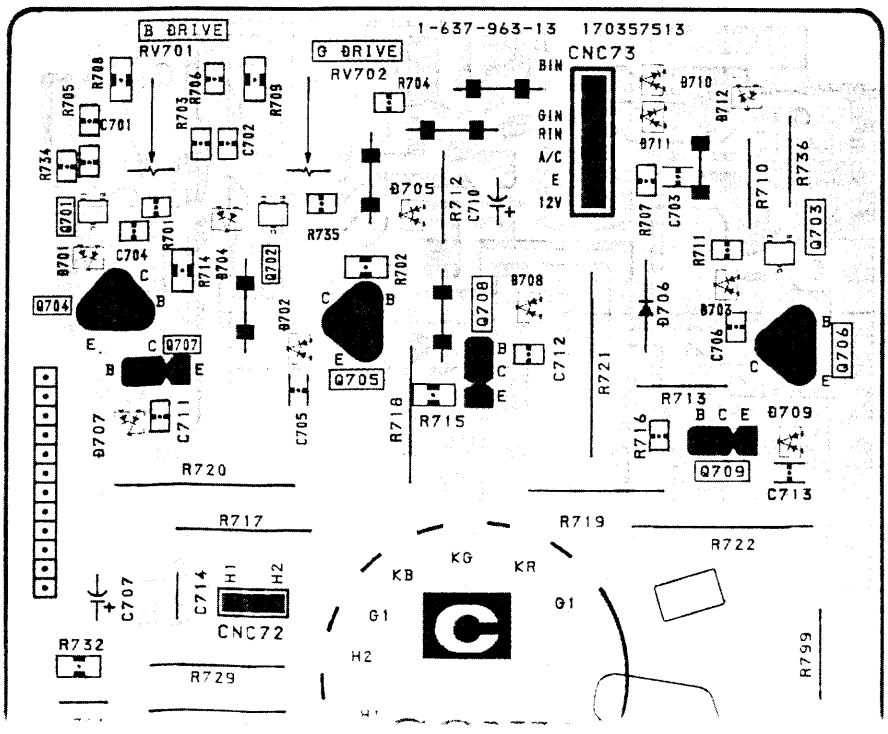

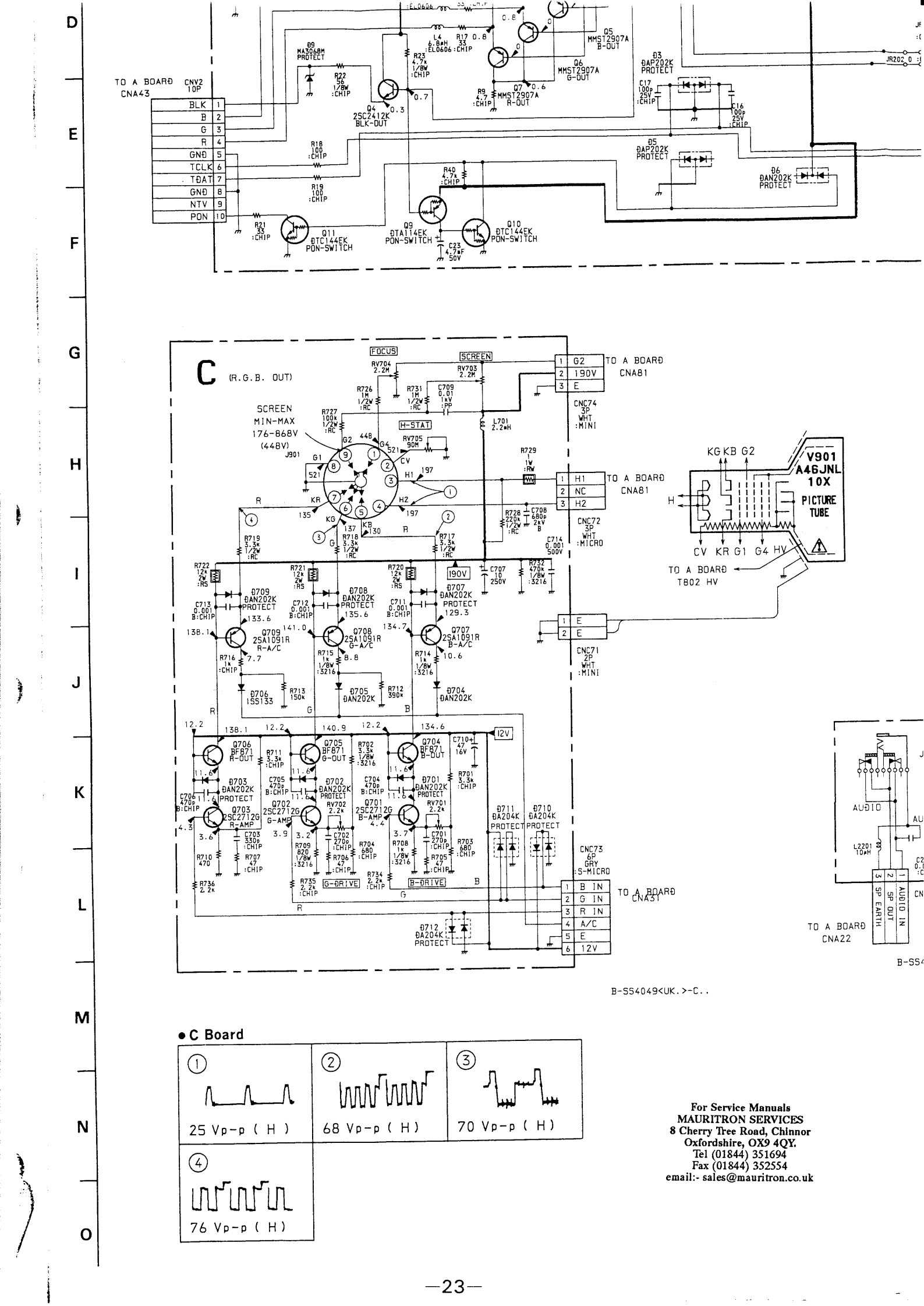

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● C Board

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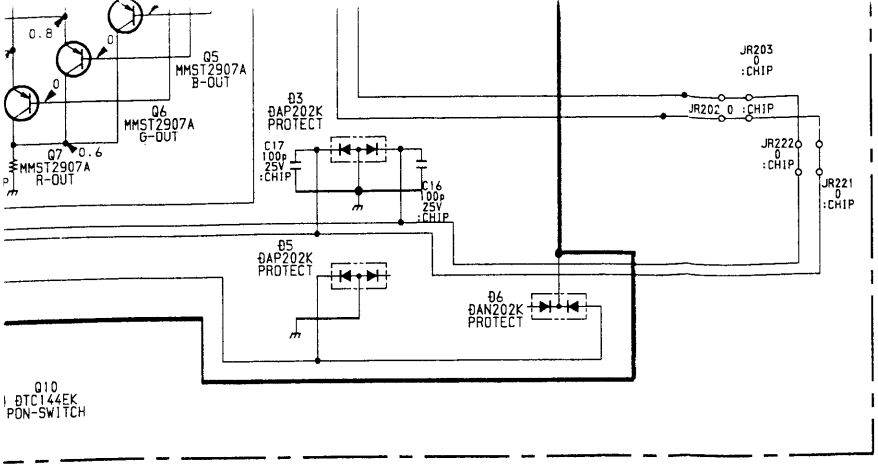

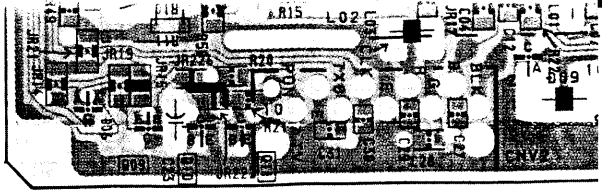

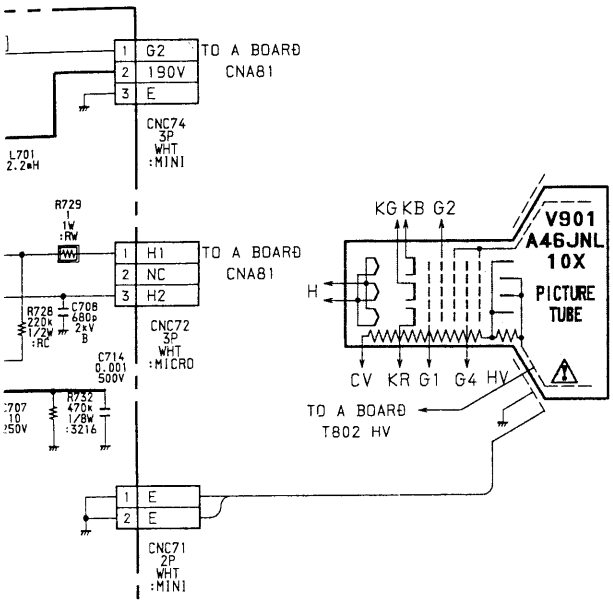

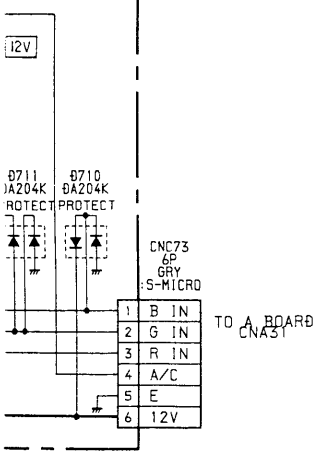

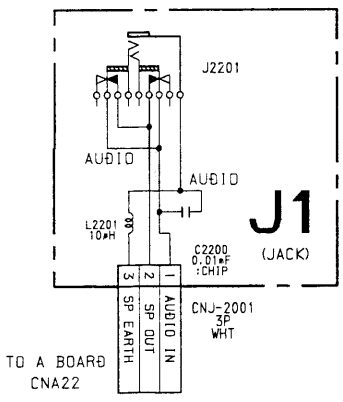

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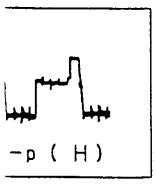

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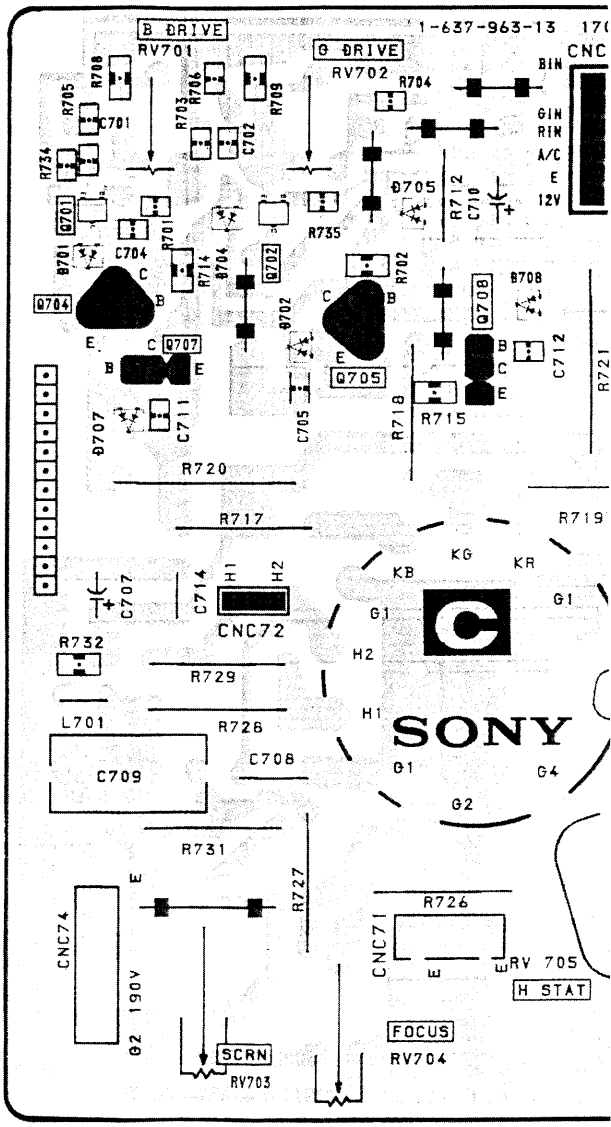
— C Board —



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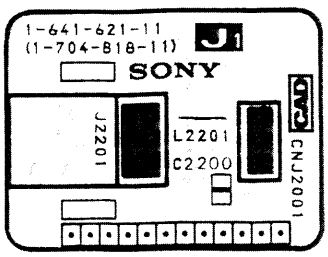

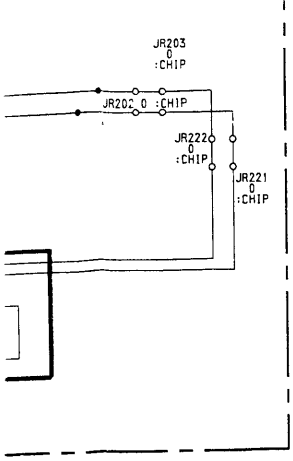

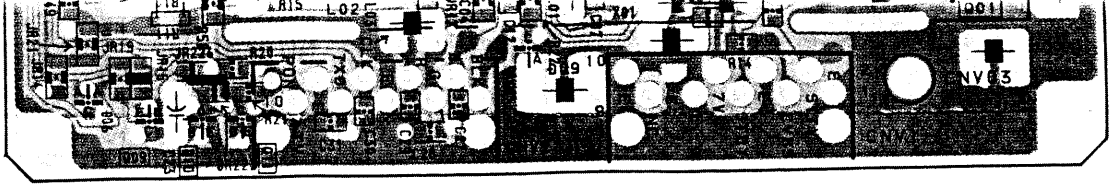

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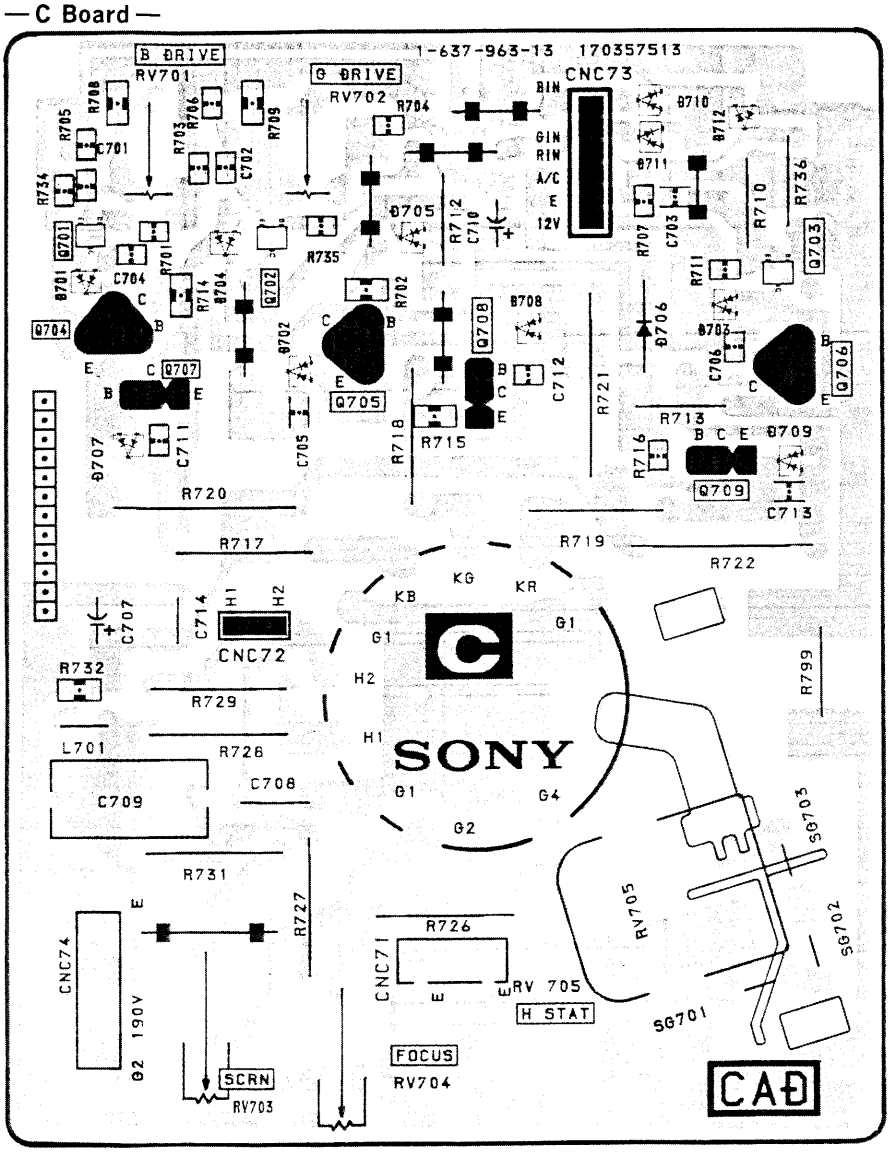

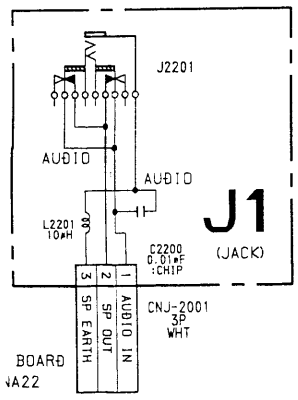

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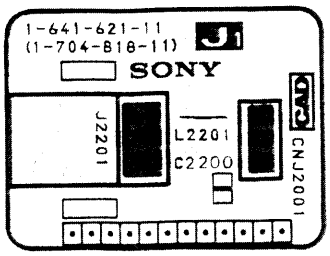

5-3. SEMICONDUCTORS

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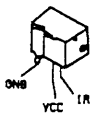

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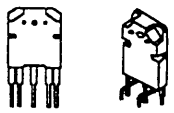

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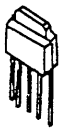

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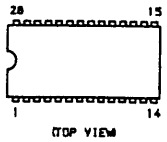

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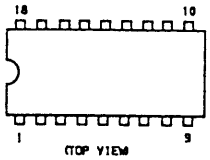

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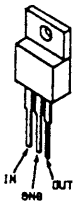

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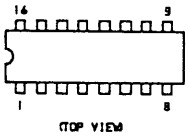

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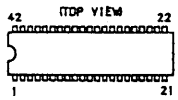

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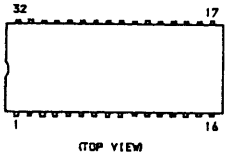

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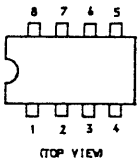

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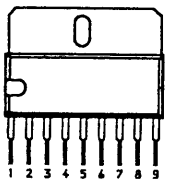

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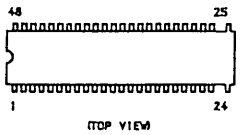

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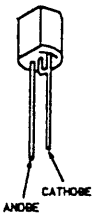

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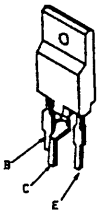

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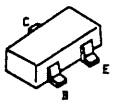

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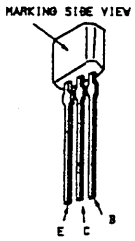

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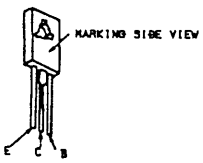

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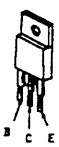

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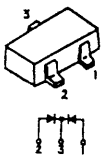

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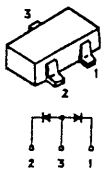

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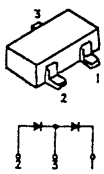

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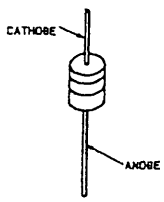

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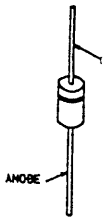

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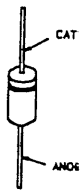

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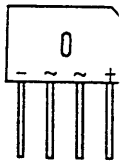

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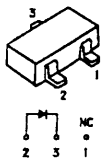

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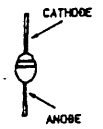

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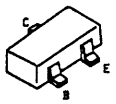

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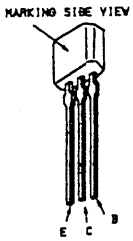
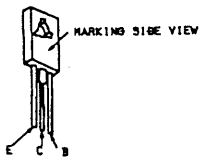
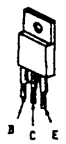


2SC2688-LK



2SÐ1408-Y



2SÐ2096-EF

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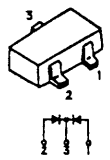
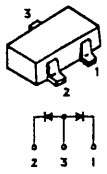
MA152WK



ÐAP202K
1S2836



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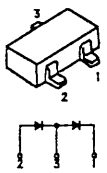
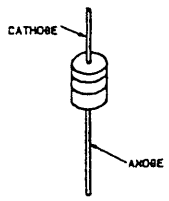
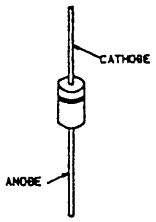
1SS226



ERA83-006
RÐ5.1ES-B2
RÐ5.6ES-B2
RÐ6.8ES-B2
RÐ7.5ES-B2
RÐ8.2ES-B3
1SS119



ERC06-15S



ERÐ28-08S
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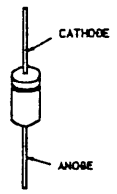
RGP02-17
R2K
RU-3AM



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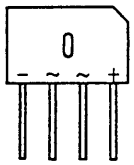
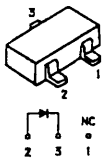
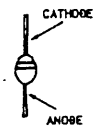


MA3051
MA3056M
MA3068M
RÐ5.1M-B2
RÐ5.6M-B2
RÐ6.8M-B2



U05G



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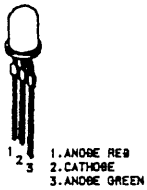
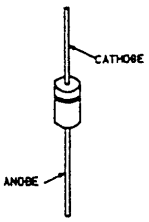
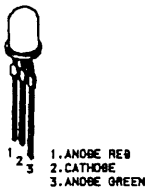


ERC06-15S



SPR-54MVW



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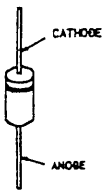
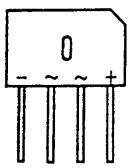
RGP02-17
R2K
RU-3AM



KBU4JL-6088



MA3051
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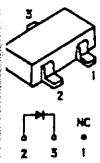
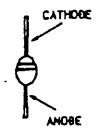
MA3068M
RD5.1M-B2
RD5.6M-B2
RD6.8M-B2



J05G



SECTION 6
EXPLODED VIEW

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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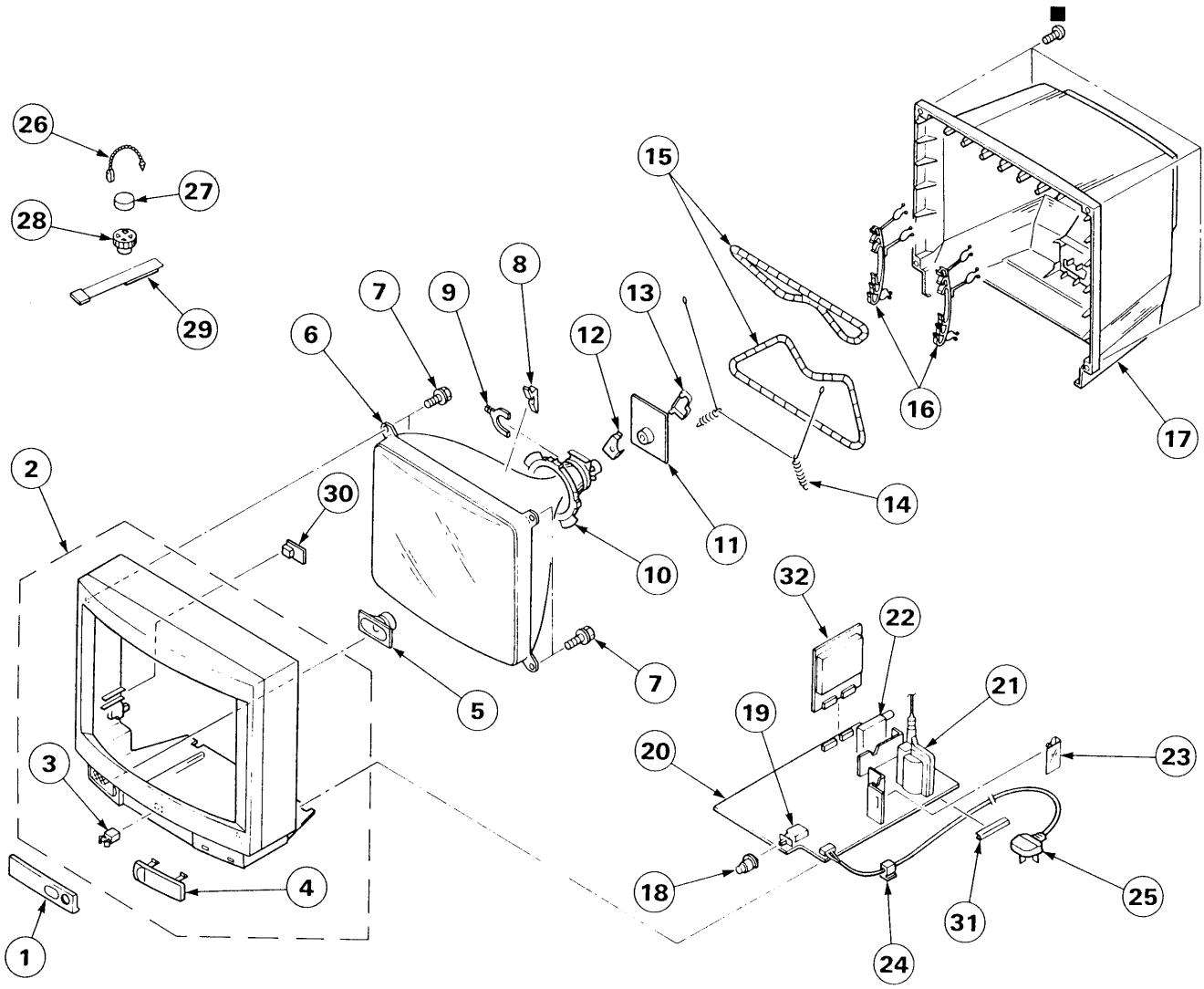
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4QY.
Tel (01844) 351694
Fax (01844) 352554
email:- sales@mauritron.co.uk

■: BVTP4×16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-200-904-01	DOOR (PAINTED)	
2	X-4200-090-1	CABINET ASSY (WITH BEZEL ASSY)	3,4
3	4-392-036-01	CATCHER, PUSH	
4	4-200-901-01	COVER, FRONT (PAINTED)	
5	1-503-258-21	SPEAKER	
6	⚠ 8-737-951-05	PICTURE TUBE (A46JNL10X)	
7	4-307-249-00	SCREW (5), TAPPING	
8	3-704-495-01	SPACER, DY	
9	1-452-277-00	MAGNET, BMC	
10	⚠ 1-451-279-21	DEFLECTION YOKE (Y19PXA)	
11	*A-1638-019-A	C BOARD, COMPLETE	
12	*4-374-717-01	COVER (MAIN), CV VOL	
13	*4-374-704-01	COVER (REAR LID), CV VOL	
14	4-369-318-00	SPRING, TENSION	
15	⚠ 1-426-359-31	COIL, DEMAGNETIZATION	
16	*4-386-622-11	BAND, DGC	
17	4-200-911-01	COVER, REAR	
18	4-200-906-01	BUTTON, POWER	
19	⚠ 1-571-433-12	SWITCH, PUSH (AC POWER)	
20	A-1632-061-A	A BOARD, COMPLETE	
21	⚠ 1-439-432-21	TRANSFORMER ASSY, FLYBACK (UX-1622)	
22	⚠ 1-465-542-11	TUNER, UHF (BT-3U601)	
23	*4-200-400-01	PLATE, INSULATION	
24	⚠ 4-389-201-03	HOLDER, AC CORD	
25	⚠ 1-590-762-11	CORD, POWER (WITH PLUG)	
26	4-308-870-00	CLIP, LEAD WIRE	
27	1-452-032-00	MAGNET, DISK; 10MM ϕ	
28	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
29	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
30	*1-641-621-11	J1 BOARD	
31	4-374-959-31	REINFORCEMENT, PC BOARD	
32	A-1645-018-A	V BOARD, COMPLETE	

A

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION			REMARK
	A-1632-061-A	A BOARD, COMPLETE **********			
	1-533-230-11	HOLDER, FUSE			
	1-565-666-12	TERMINAL, S 4P			
	4-200-399-01	SPACER, IC			
	4-200-407-01	HOLDER, LED			
	*4-341-751-01	EYELET			
	*4-341-752-01	EYELET			
		<CAPACITOR>			
C001	1-126-101-11	ELECT	100MF	20% 16V	
C002	1-106-220-00	MYLAR	0.1MF	10% 100V	
C003	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C004	1-123-382-00	ELECT	3.3MF	20% 50V	
C005	1-126-103-11	ELECT	470MF	20% 16V	
C006	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C007	1-124-907-11	ELECT	10MF	20% 50V	
C009	1-124-907-11	ELECT	10MF	20% 50V	
C010	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C012	1-126-233-11	ELECT	22MF	20% 50V	
C018	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C020	1-124-903-11	ELECT	1MF	20% 50V	
C021	1-124-907-11	ELECT	10MF	20% 50V	
C023	1-124-907-11	ELECT	10MF	20% 50V	
C024	1-124-907-11	ELECT	10MF	20% 50V	
C025	1-126-233-11	ELECT	22MF	20% 50V	
C026	1-124-903-11	ELECT	1MF	20% 50V	
C030	1-124-903-11	ELECT	1MF	20% 50V	
C037	1-163-034-00	CERAMIC CHIP	0.033MF	50V	
C038	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C039	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C041	1-124-478-11	ELECT	100MF	20% 25V	
C055	1-163-075-00	CERAMIC CHIP	0.047MF	50V	
C058	1-163-077-00	CERAMIC CHIP	0.1MF	10% 25V	
C059	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C062	1-126-101-11	ELECT	100MF	20% 16V	
C063	1-163-017-00	CERAMIC CHIP	0.0047MF	10% 50V	
C101	1-124-477-11	ELECT	47MF	20% 16V	
C102	1-124-910-11	ELECT	47MF	20% 50V	
C103	1-163-105-00	CERAMIC CHIP	33PF	5% 50V	
C104	1-164-665-11	CERAMIC CHIP	0.039MF	10% 50V	
C105	1-164-665-11	CERAMIC CHIP	0.039MF	10% 50V	
C107	1-124-477-11	ELECT	47MF	20% 16V	
C112	1-163-115-00	CERAMIC CHIP	82PF	5% 50V	
C114	1-163-115-00	CERAMIC CHIP	82PF	5% 50V	
C115	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C120	1-163-173-00	CERAMIC CHIP	47PF	5% 50V	
C123	1-163-137-00	CERAMIC CHIP	680PF	5% 50V	
C125	1-124-917-11	ELECT	33MF	20% 50V	
C128	1-163-025-11	CERAMIC CHIP	0.001MF	50V	
C130	1-136-171-00	FILM	0.33MF	5% 50V	
C131	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C132	1-163-029-11	CERAMIC CHIP	0.0047MF	50V	
C133	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C134	1-106-365-00	MYLAR	0.0082MF	10% 400V	
C135	1-163-033-00	CERAMIC CHIP	0.022MF	50V	
C136	1-163-033-00	CERAMIC CHIP	0.022MF	50V	
C138	1-216-295-00	METAL GLAZE	0	5% 1/10W	
C139	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C140	1-163-017-00	CERAMIC CHIP	0.0047MF	10% 50V	
C141	1-163-017-00	CERAMIC CHIP	0.0047MF	10% 50V	
C142	1-163-017-00	CERAMIC CHIP	0.0047MF	10% 50V	
C143	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C144	1-163-017-00	CERAMIC CHIP	0.0047MF	10% 50V	
C148	1-164-665-11	CERAMIC CHIP	0.039MF	10% 50V	
C149	1-126-101-11	ELECT	100MF	20% 16V	
C151	1-124-907-11	ELECT	10MF	20% 50V	
C154	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C157	1-124-927-11	ELECT	4.7MF	20% 50V	
C160	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C161	1-163-129-00	CERAMIC CHIP	330PF	5% 50V	
C163	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C201	1-126-233-11	ELECT	22MF	20% 50V	
C202	1-124-925-11	ELECT	2.2MF	20% 50V	
C203	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C204	1-124-480-11	ELECT	470MF	20% 25V	
C206	1-163-011-11	CERAMIC CHIP	0.0015MF	10% 50V	
C207	1-124-925-11	ELECT	2.2MF	20% 50V	
C208	1-126-104-11	ELECT	470MF	20% 35V	
C209	1-124-910-11	ELECT	47MF	20% 50V	
C210	1-106-228-00	MYLAR	0.22MF	10% 100V	
C302	1-163-059-00	CERAMIC CHIP	0.01MF	50V	
C303	1-163-059-00	CERAMIC CHIP	0.01MF	50V	
C304	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C305	1-124-910-11	ELECT	47MF	20% 50V	
C306	1-106-220-00	MYLAR	0.1MF	10% 100V	
C307	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C308	1-124-910-11	ELECT	47MF	20% 50V	
C309	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	
C314	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	
C316	1-163-377-11	CERAMIC CHIP	100PF	5% 50V	
C317	1-163-093-00	CERAMIC CHIP	10PF	5% 50V	
C318	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C319	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C321	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C323	1-163-055-00	CERAMIC CHIP	0.0047MF	10% 50V	
C329	1-131-367-00	TANTALUM	22MF	10% 16V	
C330	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C331	1-124-927-11	ELECT	4.7MF	20% 50V	
C332	1-130-783-00	MYLAR	0.33MF	10% 100V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C333	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C334	1-163-063-00	CERAMIC CHIP 0.022MF	10%	50V	
C335	1-163-063-00	CERAMIC CHIP 0.022MF	10%	50V	
C337	1-130-834-00	MYLAR 1MF	10%	63V	
C340	1-162-568-11	CERAMIC CHIP 0.33MF	10%	16V	
C341	1-130-783-00	MYLAR 0.33MF	10%	100V	
C343	1-130-785-11	MYLAR 0.47MF	10%	100V	
C344	1-106-383-00	MYLAR 0.047MF	10%	100V	
C346	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
C347	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C348	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C349	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C352	1-106-375-12	MYLAR 0.022MF	10%	250V	
C353	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C354	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C355	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	
C357	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C358	1-124-556-11	ELECT 2200MF	20%	16V	
C360	1-124-903-11	ELECT 1MF	20%	50V	
C362	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	
C367	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C370	1-126-233-11	ELECT 22MF	20%	50V	
C401	1-124-910-11	ELECT 47MF	20%	50V	
C403	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	
C404	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C429	1-163-197-00	CERAMIC CHIP 470PF	10%	50V	
C430	1-164-336-11	CERAMIC CHIP 0.33MF		25V	
C431	1-124-910-11	ELECT 47MF	20%	50V	
C432	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C433	1-126-233-11	ELECT 22MF	20%	25V	
C434	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C475	1-126-233-11	ELECT 22MF	20%	50V	
C476	1-106-216-00	MYLAR 0.068MF	10%	100V	
C490	1-124-910-11	ELECT 47MF	20%	50V	
C499	1-163-205-00	CERAMIC CHIP 0.001MF	10%	50V	
C501	1-163-181-00	CERAMIC CHIP 100PF	5%	50V	
C502	1-163-005-11	CERAMIC CHIP 470PF	10%	50V	
C503	1-163-181-00	CERAMIC CHIP 100PF	5%	50V	
C504	1-124-122-11	ELECT 100MF	20%	50V	
C505	1-126-233-11	ELECT 22MF	20%	50V	
C506	1-106-228-00	MYLAR 0.22MF	10%	100V	
C507	1-124-190-00	ELECT 680MF	10%	25V	
C508	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	
C509	1-162-568-11	CERAMIC CHIP 0.33MF	10%	16V	
C510	1-163-081-00	CERAMIC CHIP 0.22MF		25V	
C511	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	
C512	1-106-216-00	MYLAR 0.068MF	10%	100V	
C513	1-124-927-11	ELECT 4.7MF	20%	50V	
C514	1-136-298-00	FILM 0.0033MF	2%	100V	
C515	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
C516	1-163-113-00	CERAMIC CHIP 68PF	5%	50V	
C517	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
C520	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
C521	1-131-377-00	TANTALUM 10MF	10%	10V	
C524	1-106-228-00	MYLAR 0.22MF	10%	100V	
C525	1-106-216-00	MYLAR 0.068MF	10%	100V	
C526	1-124-910-11	ELECT 47MF	20%	50V	
C527	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	
C529	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	
C530	1-163-197-00	CERAMIC CHIP 470PF	5%	50V	
C532	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	
C536	1-124-927-11	ELECT 4.7MF	20%	50V	
C537	1-163-038-00	CERAMIC CHIP 0.1MF		25V	
C540	1-163-111-00	CERAMIC CHIP 56PF	5%	50V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C601 ⚠	1-161-964-61	CERAMIC 0.0047MF		250V	
C602 ⚠	1-161-964-61	CERAMIC 0.0047MF		250V	
C603	1-162-599-12	CERAMIC 0.0047MF		250V	
C604	1-125-318-00	ELECT(BLOCK) 220MF	20%	400V	
C605	1-161-754-00	CERAMIC 0.001MF	10%	2KV	
C606	1-136-637-11	FILM 0.047MF	10%	630V	
C607	1-106-367-00	MYLAR 0.01MF	10%	400V	
C608	1-161-753-00	CERAMIC 470PF	10%	3KV	
C609	1-124-347-00	ELECT 100MF	20%	160V	
C610	1-124-557-11	ELECT 1000MF	20%	25V	
C612	1-102-228-00	CERAMIC 470PF	10%	500V	
C614	1-126-101-11	ELECT 100MF	20%	16V	
C618	1-126-233-11	ELECT 22MF	20%	50V	
C621 ⚠	1-136-517-11	FILM 0.22MF	20%	300V	
C623 ⚠	1-164-246-51	CERAMIC 0.0022MF	20%	400V	
C631	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	
C633	1-161-742-00	CERAMIC 0.0022MF	20%	400V	
C801	1-101-821-00	CERAMIC 0.0022MF		500V	
C802	1-102-244-00	CERAMIC 220PF	10%	500V	
C804	1-126-101-11	ELECT 100MF	20%	16V	
C805 ⚠	1-136-078-11	FILM 0.0098MF	3%	2KV	
C806 ⚠	1-136-652-11	FILM 0.022MF	10%	250V	
C807 ⚠	1-161-731-51	CERAMIC 0.001MF	10%	2KV	
C808	1-136-933-11	FILM 1MF	5%	100V	
C809	1-102-212-00	CERAMIC 820PF	10%	500V	
C811	1-136-540-11	FILM 0.82MF	5%	160V	
C812	1-124-634-11	ELECT 1MF	20%	250V	
C813	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	
C814	1-126-542-11	ELECT 4.7MF	20%	160V	
C815	1-126-233-11	ELECT 22MF	20%	50V	
C816	1-102-228-00	CERAMIC 470PF	10%	500V	
C817	1-123-948-00	ELECT 22MF	20%	250V	
C818	1-106-375-12	MYLAR 0.022MF	10%	250V	
C819	1-162-114-00	CERAMIC 0.0047MF		2KV	
C820	1-162-318-11	CERAMIC 0.001MF	10%	500V	
C821	1-126-101-11	ELECT 100MF	20%	16V	
C822	1-162-318-11	CERAMIC 0.001MF	10%	500V	
C823	1-126-233-11	ELECT 22MF	20%	50V	
C824	1-124-913-11	ELECT 470MF	20%	50V	
C825	1-106-371-00	MYLAR 0.015MF	10%	400V	
C840	1-124-902-00	ELECT 0.47MF	20%	50V	
C850	1-126-233-11	ELECT 22MF	20%	25V	
C1301	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1302	1-126-101-11	ELECT 100MF	20%	16V	
C1303	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V	
C1304	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V	
C1305	1-126-233-11	ELECT 22MF	20%	50V	
C1306	1-163-005-11	CERAMIC CHIP 470PF	10%	50V	

<FILTER>

CD101	1-579-109-11	DISCRIMINATOR, CERAMIC
CF501	1-409-429-11	TRAP, CERAMIC
SWF101	1-404-718-11	FILTER, SURFACE WAVE
XF501	1-567-569-11	FILTER, CERAMIC

<CONNECTOR>

CNA21	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)
CNA22	*1-568-878-51	PIN, CONNECTOR 3P
CNA42	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
CNA43	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
CNA61	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
CNA62	*1-580-844-11	PIN, CONNECTOR (POWER)	
CNA63	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CNA64	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CNA81	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
CNA82	*1-580-798-11	CONNECTOR PIN (BY) 6P	
		<TRIMMER>	
CT332	1-141-418-11	CAP, ADJ	
		<DIODE>	
D002	8-719-920-55	DIODE SPR-54MVW	
D004	8-719-104-34	DIODE 1S2836	
D007	8-719-400-18	DIODE MA152WK	
D008	8-719-105-82	DIODE RD5.1M-B2	
D009	8-719-105-82	DIODE RD5.1M-B2	
D011	8-719-911-19	DIODE 1SS119	
D020	8-719-911-19	DIODE 1SS119	
D110	8-719-109-85	DIODE RD5.1ES-B2	
D301	8-719-104-34	DIODE 1S2836	
D302	8-719-800-76	DIODE 1SS226	
D303	8-719-104-34	DIODE 1S2836	
D305	8-719-800-76	DIODE 1SS226	
D306	8-719-400-18	DIODE MA152WK	
D313	8-719-800-76	DIODE 1SS226	
D321	8-719-109-89	DIODE RD5.6ES-B2	
D324	8-719-104-34	DIODE 1S2836	
D334	8-719-104-34	DIODE 1S2836	
D402	8-719-109-97	DIODE RD6.8ES-B2	
D403	8-719-109-97	DIODE RD6.8ES-B2	
D404	8-719-109-97	DIODE RD6.8ES-B2	
D405	8-719-110-09	DIODE RD8.2ES-B3	
D406	8-719-110-09	DIODE RD8.2ES-B3	
D411	8-719-109-97	DIODE RD6.8ES-B2	
D412	8-719-010-34	DIODE UZ-4.7BSC	
D417	8-719-104-34	DIODE 1S2836	
D418	8-719-104-34	DIODE 1S2836	
D426	8-719-911-19	DIODE 1SS119	
D427	8-719-911-19	DIODE 1SS119	
D450A	8-719-109-97	DIODE RD6.8ES-B2	
D501	8-719-300-33	DIODE RU-3AM	
D503	8-719-911-19	DIODE 1SS119	
D504	8-719-400-18	DIODE MA152WK	
D519	8-719-400-18	DIODE MA152WK	
D601 ⚠	8-719-946-90	DIODE KBU4JL-6088	
D602	8-719-976-64	DIODE RGP02-17	
D603	8-719-911-55	DIODE U05G	
D604	8-719-928-08	DIODE ERD28-08S	
D605	8-719-300-33	DIODE RU-3AM	
D606	8-719-980-78	DIODE ERA83-006	
D607	8-719-300-33	DIODE RU-3AM	
D608	8-719-300-33	DIODE RU-3AM	
D609	8-719-911-55	DIODE U05G	
D610	8-719-911-55	DIODE U05G	
D611	8-719-312-40	DIODE R2K	
D801	8-719-945-80	DIODE ERC06-15S	
D802	8-719-928-08	DIODE ERD28-08S	
D803	8-719-300-33	DIODE RU-3AM	
D805	8-719-300-33	DIODE RU-3AM	
D806	8-719-976-64	DIODE RGP02-17	
D807	8-719-300-33	DIODE RU-3AM	
D808	8-719-300-33	DIODE RU-3AM	
D820	8-719-911-19	DIODE 1SS119	
D1301	8-719-911-19	DIODE 1SS119	
D1302	8-719-911-19	DIODE 1SS119	
D1303	8-719-911-19	DIODE 1SS119	
D1304	8-719-800-76	DIODE 1SS226	
D1305	8-719-800-76	DIODE 1SS226	
D1306	8-719-800-76	DIODE 1SS226	
D1307	8-719-800-76	DIODE 1SS226	
		<DELAY LINE>	
DL301	1-236-062-11	MODULE, Y DELAY LINE	
DL1301	1-415-613-11	DELAY LINE, Y	
		<FUSE>	
F601 ⚠	1-576-231-21	FUSE (H.B.C.) 4A/250V	
	4-201-057-01	COVER, FUSE; F601	
		<IC>	
IC001	8-759-062-07	IC PCA84C840P/016	
IC002	8-759-043-86	IC ST24C02AB1	
IC003	8-749-922-13	IC KEY-C00SV-F	
IC004	8-759-805-37	IC L78LR05D-MA	
IC005	8-759-157-40	IC UPC574J	
IC102	8-759-044-41	IC TDA3827/V3	
IC201	8-759-502-74	IC TDA7245	
IC301	8-759-505-39	IC TDA4660V2	
IC302	8-759-512-04	IC TDA3505-V1	
IC331	8-759-513-46	IC TDA4510/V8	
IC501	8-759-113-05	IC UPC1488H	
	*4-389-343-01	SPRING; IC501	
IC502	8-759-515-72	IC TDA8304	
IC601	8-749-901-65	IC STR54041	
	*4-368-683-01	SPRING; IC601	
IC801	8-759-945-58	IC RC4558P	
IC802	8-759-604-39	IC M5F78M12L	
	*4-389-343-01	SPRING; IC802	
		<JACK>	
J401	1-561-534-00	SOCKET 21P	
J1401	1-563-500-11	JACK BLOCK, PIN (L TYPE) 2P	
		<COIL>	
L001	1-408-409-00	INDUCTOR 10UH	
L102	1-408-409-00	INDUCTOR 10UH	
L103	1-408-399-00	INDUCTOR 1.5UH	
L106	1-408-415-00	INDUCTOR 33UH	
L107	1-408-409-00	INDUCTOR 10UH	
L110	1-408-409-00	INDUCTOR 10UH	
L301	1-408-409-00	INDUCTOR 10UH	
L302	1-408-419-00	INDUCTOR 68UH	
L303	1-408-425-00	INDUCTOR 220UH	
L404	1-408-397-00	INDUCTOR 1UH	
L405	1-408-409-00	INDUCTOR 10UH	
L406	1-408-417-00	INDUCTOR 47UH	
L501	1-404-493-31	COIL	
L502	1-408-407-00	INDUCTOR 6.8UH	
L506	1-408-411-00	INDUCTOR 15UH	
L801	1-407-365-00	COIL,CHOKE	
L802	1-420-872-00	COIL, AIR CORE	
L804	1-459-390-00	COIL (WITH CORE)	

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For Service Manuals
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Oxfordshire, OX9 4QY.
Tel (01844) 351694
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REF.NO.	PART NO.	DESCRIPTION	REMARK
L805	1-459-105-21	COIL(WITH CORE)	
L806	1-459-756-12	COIL, HORIZONTAL LINEARITY	
L807	1-408-239-00	INDUCTOR 4.7MMH	
L808	1-408-226-00	INDUCTOR 82UH	
L1001	1-408-397-00	INDUCTOR 1UH	
L1002	1-408-397-00	INDUCTOR 1UH	
		<IC LINK>	
PS801⚠	1-532-637-91	LINK, IC 1A	
		<TRANSISTOR>	
Q001	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q003	8-729-901-01	TRANSISTOR DTC144EK	
Q004	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q005	8-729-923-54	TRANSISTOR DTA143TK	
Q006	8-729-922-66	TRANSISTOR 2SC2410SN	
Q007	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q015	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q016	8-729-901-47	TRANSISTOR DTA143EK	
Q017	8-729-216-22	TRANSISTOR 2SA1162-G	
Q019	8-729-901-06	TRANSISTOR DTA144EK	
Q020	8-729-901-00	TRANSISTOR DTC124EK	
Q104	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q107	8-729-216-22	TRANSISTOR 2SA1162-G	
Q112	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q114	8-729-901-00	TRANSISTOR DTC124EK	
Q115	8-729-901-00	TRANSISTOR DTC124EK	
Q123	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q141	8-729-014-99	TRANSISTOR BF959-AMMO	
Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q304	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q305	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q307	8-729-216-22	TRANSISTOR 2SA1162-G	
Q310	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q311	8-729-216-22	TRANSISTOR 2SA1162-G	
Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q457	8-729-216-22	TRANSISTOR 2SA1162-G	
Q504	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q505	8-729-216-22	TRANSISTOR 2SA1162-G	
Q601	8-729-906-74	TRANSISTOR BC637-16	
Q801	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q802	8-729-925-64	TRANSISTOR BU508AS2	
	*4-389-343-01	SPRING; Q802	
Q803	8-729-202-03	TRANSISTOR 2SD1408-Y	
	*4-389-343-01	SPRING; Q803	
Q1301	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1302	8-729-901-06	TRANSISTOR DTA144EK	
Q1303	8-729-901-01	TRANSISTOR DTC144EK	
Q1304	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1305	8-729-901-01	TRANSISTOR DTC144EK	
Q1306	8-729-901-01	TRANSISTOR DTC144EK	
		<RESISTOR>	
JR003	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR004	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR005	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR006	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR007	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR008	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR009	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR010	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR011	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR012	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR015	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR016	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR017	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR018	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR019	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR020	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR021	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR022	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR023	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR024	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR026	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR027	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR028	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR029	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR030	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR033	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR034	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR036	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR037	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR038	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR039	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR040	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR041	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR042	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR043	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR051	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR052	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR060	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR099	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR101	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR102	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR103	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR104	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR105	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR106	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR108	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR109	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR110	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR111	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR117	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR118	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR119	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR123	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR125	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR126	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR127	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR128	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR129	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR130	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR131	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR133	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR134	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR135	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR136	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR137	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR139	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR144	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR146	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR147	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR148	1-216-296-00	METAL GLAZE 0 5% 1/8W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
JR149	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR150	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR151	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR152	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR153	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR155	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR181	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR182	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR183	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR184	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R001	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R002	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R003	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R004	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R006	1-216-254-00	METAL GLAZE	220K	5%	1/8W	
R007	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R008	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R009	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R010	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R011	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R012	1-216-248-00	METAL GLAZE	120K	5%	1/8W	
R013	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R014	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R015	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R016	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R017	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R018	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R019	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R020	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R021	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R022	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R023	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R024	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R025	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R026	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R028	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R029	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R030	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R031	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R034	1-216-238-00	METAL GLAZE	47K	5%	1/8W	
R035	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R038	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R040	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R041	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R042	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R043	1-215-900-11	METAL OXIDE	22K	5%	2W	
R044	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R045	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R046	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R047	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R048	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R049	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R050	1-216-250-00	METAL GLAZE	150K	5%	1/8W	
R051	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R052	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R053	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R054	1-249-395-11	CARBON	15	5%	1/4W	
R055	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R056	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R058	1-249-434-11	CARBON	27K	5%	1/4W	
R059	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R060	1-216-234-00	METAL GLAZE	33K	5%	1/8W	
R061	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R062	1-216-242-00	METAL GLAZE	68K	5%	1/8W	
R064	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R072	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R075	1-216-248-00	METAL GLAZE	120K	5%	1/8W	
R076	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R077	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R078	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R079	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R081	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R082	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R083	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R084	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R087	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R094	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R095	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R096	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R097	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R099	1-216-228-00	METAL GLAZE	18K	5%	1/8W	
R100	1-216-015-00	METAL GLAZE	39	5%	1/10W	
R101	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R102	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R103	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R104	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R105	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R106	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R109	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R110	1-249-437-11	CARBON	47K	5%	1/4W	
R111	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R112	1-249-411-11	CARBON	330	5%	1/4W	
R113	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R114	1-216-238-00	METAL GLAZE	47K	5%	1/8W	
R115	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R116	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R118	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R119	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R120	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R122	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R130	1-249-409-11	CARBON	220	5%	1/4W	
R131	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R132	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R136	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R138	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R139	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R140	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R141	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R142	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R143	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R144	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R147	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R148	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R149	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R151	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R152	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R153	1-215-867-00	METAL OXIDE	470	5%	1W	
R199	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R201	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R202	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R203	1-216-298-00	METAL GLAZE	2.2	5%	1/10W	
R204	1-247-741-11	CARBON	150	5%	1/2W	
R205	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R206	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R207	1-216-298-00	METAL GLAZE	2.2	5%	1/10W	
R303	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R304	1-216-033-00	METAL GLAZE	220	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R305	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R306	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R307	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R309	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R310	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R311	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R312	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R313	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R314	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R315	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R317	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R320	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R321	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R322	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R323	1-216-192-00	METAL GLAZE	560	5%	1/8W	
R324	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R325	1-249-410-11	CARBON	270	5%	1/4W	
R326	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R327	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R328	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R329	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R330	1-216-244-00	METAL GLAZE	82K	5%	1/8W	
R331	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R332	1-216-270-00	METAL GLAZE	1M	5%	1/8W	
R333	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R334	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R335	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R336	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R337	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R338	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R344	1-247-848-11	CARBON	5.1K	5%	1/4W	
R345	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R347	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R348	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R349	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R350	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R351	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R352	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R353	1-249-438-11	CARBON	56K	5%	1/4W	
R354	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R355	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R356	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R357	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R358	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R359	1-216-238-00	METAL GLAZE	47K	5%	1/8W	
R363	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R364	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R402	1-216-172-00	METAL GLAZE	82	5%	1/8W	
R403	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R404	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R405	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R406	1-216-226-00	METAL GLAZE	15K	5%	1/8W	
R407	1-216-226-00	METAL GLAZE	15K	5%	1/8W	
R408	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R409	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R411	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R412	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R413	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R414	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R420	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R421	1-216-449-11	METAL OXIDE	56	5%	2W	
R423	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R424	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R425	1-216-033-00	METAL GLAZE	220	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R426	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R427	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R428	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R430	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R431	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R432	1-249-403-11	CARBON	68	5%	1/4W	
R433	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R434	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R435	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R436	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R437	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R501	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R502	1-247-743-11	CARBON	220	5%	1/2W	
R503	1-249-437-11	CARBON	47K	5%	1/4W	
R504	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R505	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R507	1-216-350-11	METAL OXIDE	1.2	5%	1W	F
R508	1-215-867-00	METAL OXIDE	470	5%	1W	
R510	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R511	1-216-244-00	METAL GLAZE	82K	5%	1/8W	
R512	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R513	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R514	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R515	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R516	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R517	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R518	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R519	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R520	1-216-258-00	METAL GLAZE	330K	5%	1/8W	
R521	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R522	1-215-863-11	METAL OXIDE	100	5%	1W	
R523	1-247-754-11	CARBON	1.5K	5%	1/2W	
R524	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R525	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R527	1-215-869-11	METAL OXIDE	1K	5%	1W	
R532	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R533	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R534	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R535	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R539	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R542	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R543	1-249-408-11	CARBON	180	5%	1/4W	
R545	1-216-282-00	METAL GLAZE	3.3M	5%	1/8W	
R548	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R601 ⚠	1-205-909-11	WIREWOUND	3.3	5%	10W	F
R602	1-214-923-00	CARBON	270K	5%	1/2W	
R603	1-215-903-11	METAL OXIDE	68K	5%	2W	
R604	1-247-752-11	CARBON	1K	5%	1/2W	
R606	1-212-877-11	FUSIBLE	68	5%	1/4W	
R608	1-215-884-11	METAL OXIDE	47	5%	2W	
R609	1-207-905-00	WIREWOUND	0.27	10%	2W	
R611	1-214-915-00	CARBON	120K	5%	1/2W	
R612	1-219-137-11	FUSIBLE	0.33	5%	1/4W	
R613	1-217-811-11	FUSIBLE	0.47	5%	1/4W	
R614	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R615	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R617	1-216-354-11	METAL OXIDE	2.7	5%	1W	F
R620	1-216-465-11	METAL OXIDE	27K	5%	2W	
R621	1-216-465-11	METAL OXIDE	27K	5%	2W	
R628	1-218-265-11	METAL GLAZE	8.2M	5%	1W	
R801	1-217-778-11	FUSIBLE	1K	5%	1W	F
R802	1-217-819-91	FUSIBLE	2.7K	5%	1/4W	
R803	1-216-352-11	METAL OXIDE	1.8	5%	1W	F

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R804	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R805	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R806	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R807	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R808	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R809	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R810	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R811	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R812	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R813	1-212-877-11	FUSIBLE	68	5%	1/4W	
R814	1-215-868-00	METAL OXIDE	680	5%	1W	F
R816	1-247-883-00	CARBON	150K	5%	1/4W	
R817	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R818	1-202-830-00	SOLID	10K	10%	1/2W	
R819	1-249-448-11	CARBON	1.2	5%	1/4W	F
R820	1-217-811-11	FUSIBLE	0.47	5%	1/4W	
R821	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R822	1-216-204-00	METAL GLAZE	1.8K	5%	1/8W	
R826	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R827	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R830	1-216-192-00	METAL GLAZE	560	5%	1/8W	
R850	1-215-882-00	METAL OXIDE	22	5%	2W	F
R1301	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1302	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1303	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1304	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1305	1-216-200-00	METAL GLAZE	1.2K	5%	1/8W	
R1306	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1307	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1308	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1309	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1310	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1311	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1312	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R1313	1-216-025-00	METAL GLAZE	100	5%	1/10W	

<VARIABLE RESISTOR>

RV001	1-238-012-11	RES, ADJ, CARBON 1K
RV501	1-238-016-11	RES, ADJ, CARBON 10K
RV502	1-226-703-11	RES, ADJ, METAL GLAZE 10K
RV503	1-238-019-11	RES, ADJ, CARBON 47K
RV504	1-238-019-11	RES, ADJ, CARBON 47K
RV505	1-238-009-11	RES, ADJ, CARBON 220
RV801	1-238-015-11	RES, ADJ, CARBON 4.7K

<SWITCH>

S001	1-571-532-21	SWITCH, TACTIL
S002	1-571-532-21	SWITCH, TACTIL
S003	1-571-532-21	SWITCH, TACTIL
S601 ⚠	1-571-433-12	SWITCH, PUSH (AC POWER)

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK

<TRANSFORMER>

T601 ⚠	1-450-217-22	S.R.T
T604 ⚠	1-424-078-11	TRANSFORMER, TRIGGER PULSE
T605 ⚠	1-421-862-11	LFT
T801	1-437-090-00	HDT
T802 ⚠	1-439-432-21	TRANSFORMER ASSY, FLYBACK (UX-1622)

<THERMISTOR>

THP601 ⚠	1-808-059-32	THERMISTOR, POSITIVE

<TUNER>

TU101 ⚠	1-465-542-11	TUNER, UHF (BT-3U601)

<CRYSTAL>

X001	1-577-619-11	VIBRATOR, CRYSTAL
X332	1-567-131-00	OSCILLATOR, CRYSTAL

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	*A-1638-019-A	C BOARD, COMPLETE
		**********
	*4-374-704-01	COVER (REAR LID), CV VOL
	*4-374-717-01	COVER (MAIN), CV VOL

<CAPACITOR>

C701	1-163-127-00	CERAMIC CHIP 270PF	5%	50V
C702	1-163-127-00	CERAMIC CHIP 270PF	5%	50V
C703	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C704	1-163-005-11	CERAMIC CHIP 470PF	10%	50V
C705	1-163-005-11	CERAMIC CHIP 470PF	10%	50V
C706	1-163-005-11	CERAMIC CHIP 470PF	10%	50V
C707	1-123-947-00	ELECT 10MF	20%	250V
C708	1-162-116-00	CERAMIC 680PF	10%	2KV
C709	1-136-666-11	FILM 0.01MF	5%	1KV
C710	1-124-477-11	ELECT 47MF	20%	16V
C711	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C712	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C713	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C714	1-162-318-11	CERAMIC 0.001MF	10%	500V

<CONNECTOR>

CNC71	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CNC72	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P
CNC73	*1-568-881-51	PIN, CONNECTOR 6P
CNC74	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P

<DIODE>

D701	8-719-400-18	DIODE MA152WK
D702	8-719-400-18	DIODE MA152WK
D703	8-719-400-18	DIODE MA152WK
D704	8-719-400-18	DIODE MA152WK
D705	8-719-400-18	DIODE MA152WK
D706	8-719-911-19	DIODE 1SS119
D707	8-719-400-18	DIODE MA152WK
D708	8-719-400-18	DIODE MA152WK
D709	8-719-400-18	DIODE MA152WK
D710	8-719-800-76	DIODE 1SS226
D711	8-719-800-76	DIODE 1SS226
D712	8-719-800-76	DIODE 1SS226

<JACK>

J901	1-526-814-11	SOCKET, PICTURE TUBE

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<COIL>				
L701	1-407-496-00	INDUCTOR	2.2MMH			
		<TRANSISTOR>				
Q701	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q702	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q703	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q704	8-729-906-70	TRANSISTOR BF871				
Q705	8-729-906-70	TRANSISTOR BF871				
Q706	8-729-906-70	TRANSISTOR BF871				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-200-17	TRANSISTOR 2SA1091-O				
Q709	8-729-200-17	TRANSISTOR 2SA1091-O				
		<RESISTOR>				
R701	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R702	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W	
R703	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R704	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R705	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R706	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R707	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R708	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R709	1-216-196-00	METAL GLAZE	820	5%	1/8W	
R710	1-249-413-11	CARBON	470	5%	1/4W	
R711	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R712	1-247-893-11	CARBON	390K	5%	1/4W	
R713	1-247-883-00	CARBON	150K	5%	1/4W	
R714	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R715	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R716	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R717	1-202-824-00	SOLID	3.3K	10%	1/2W	
R718	1-202-824-00	SOLID	3.3K	10%	1/2W	
R719	1-202-824-00	SOLID	3.3K	10%	1/2W	
R720	1-216-463-00	METAL OXIDE	12K	5%	2W	
R721	1-216-463-00	METAL OXIDE	12K	5%	2W	
R722	1-216-463-00	METAL OXIDE	12K	5%	2W	
R726	1-202-719-00	SOLID	1M	10%	1/2W	
R727	1-202-838-00	SOLID	100K	10%	1/2W	
R728	1-202-842-11	SOLID	220K	10%	1/2W	
R729	1-216-349-00	METAL OXIDE	1	5%	1W	F
R731	1-202-719-00	SOLID	1M	10%	1/2W	
R732	1-216-262-00	METAL GLAZE	470K	5%	1/8W	
R734	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R735	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R736	1-249-421-11	CARBON	2.2K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV701	1-228-721-00	RES, ADJ, CERAMIC CARBON 2.2K				
RV702	1-228-721-00	RES, ADJ, CERAMIC CARBON 2.2K				
RV703	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV704	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV705	1-230-798-11	RES, ADJ, METAL GLAZE 90M				

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A-1645-018-A V BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1	1-126-101-11	ELECT	100MF	20%	16V	
C2	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C3	1-124-120-11	ELECT	220MF	20%	16V	
C4	1-163-077-00	CERAMIC CHIP	0.1MF		50V	
C5	1-124-120-11	ELECT	220MF	20%	16V	
C6	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C7	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C8	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C9	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C10	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C11	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C12	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C13	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C14	1-124-927-11	ELECT	4.7MF	20%	50V	
C16	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C17	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C23	1-124-927-11	ELECT	4.7MF	20%	50V	
C26	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C27	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C29	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C32	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C33	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
		<CONNECTOR>				
CNV1	*1-565-393-11	CONNECTOR, BOARD TO BOARD				
CNV2	*1-565-393-11	CONNECTOR, BOARD TO BOARD				
		<DIODE>				
D1	8-719-105-91	DIODE RD5.6M-B2				
D3	8-719-104-34	DIODE 1S2836				
D5	8-719-104-34	DIODE 1S2836				
D6	8-719-400-18	DIODE MA152WK				
D9	8-719-106-17	DIODE RD6.8M-B2				
		<IC>				
IC2	8-759-045-54	IC SAA5246P/E/M4A				
IC3	8-759-510-49	IC FCB61C65L-70P				
		<COIL>				
L1	1-408-403-00	INDUCTOR	3.3UH			
L2	1-408-407-00	INDUCTOR	6.8UH			
L3	1-408-407-00	INDUCTOR	6.8UH			
L4	1-408-407-00	INDUCTOR	6.8UH			
		<IC LINK>				
PS1	⚠1-532-679-91	LINK, IC (ICP-N15) 0.6A				
		<TRANSISTOR>				
Q1	8-729-900-53	TRANSISTOR DTC114EK				
Q2	8-729-920-92	TRANSISTOR 2SD2096-EF				
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q5	8-729-807-87	TRANSISTOR 2SB1295-UL6				
Q6	8-729-807-87	TRANSISTOR 2SB1295-UL6				
Q7	8-729-807-87	TRANSISTOR 2SB1295-UL6				
Q9	8-729-901-04	TRANSISTOR DTA114EK				
Q10	8-729-901-01	TRANSISTOR DTC144EK				
Q11	8-729-901-01	TRANSISTOR DTC144EK				

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<RESISTOR>				
JR01	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR02	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR03	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR08	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR09	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR14	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR15	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR18	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR19	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR20	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR21	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR23	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR24	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR25	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR26	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR202	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR203	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR221	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR222	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R2	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R3	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R4	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R5	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R6	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R7	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R8	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R9	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R10	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R11	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R12	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R14	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R15	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R16	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R17	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R18	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R19	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R21	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R22	1-216-168-00	METAL GLAZE	56	5%	1/8W	
R23	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R42	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R49	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R50	1-216-296-00	METAL GLAZE	0	5%	1/8W	
		<VARIABLE RESISTOR>				
RV1	1-238-012-11	RES, ADJ, CARBON 1K				
		<CRYSTAL>				
X1	1-579-266-31	CRYSTAL VIBRATOR				

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-641-621-11	J1 BOARD	
		<CAPACITOR>	
C2200	1-163-031-11	CERAMIC CHIP 0.01MF	50V
		<CONNECTOR>	
CNJ2001	*1-568-878-51	PIN, CONNECTOR 3P	
		<JACK>	
J2201	1-562-837-11	JACK	
		<COIL>	
L2201	1-408-409-00	INDUCTOR	10UH
		MISCELLANEOUS	
⚠	1-426-359-31	COIL, DEMAGNETIZATION	
⚠	1-451-279-21	DEFLECTION YOKE (Y19PXA)	
	1-452-032-00	MAGNET, DISK; 10MM φ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
	1-452-277-00	MAGNET, BMC	
	1-503-258-21	SPEAKER	
⚠	1-590-762-11	CORD, POWER (WITH PLUG)	
V901 ⚠	8-737-951-05	PICTURE TUBE (A46JNL10X)	

ACCESSORIES AND PACKING MATERIALS

PART NO.	DESCRIPTION	REMARK
*4-034-216-01	CUSHION (UPPER) (ASSY)	
*4-034-217-01	CUSHION (LOWER) (ASSY)	
*4-034-218-01	INDIVIDUAL CARTON	
4-200-865-61	MANUAL, INSTRUCTION (ENGLISH)	
*4-384-027-01	BAG, PROTECTION	

REMOTE COMMANDER

1-465-562-11	CONTROL UNIT, REMOTE (RM-694)	
4-035-049-01	COVER, BATTERY (FOR RM-694)	

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